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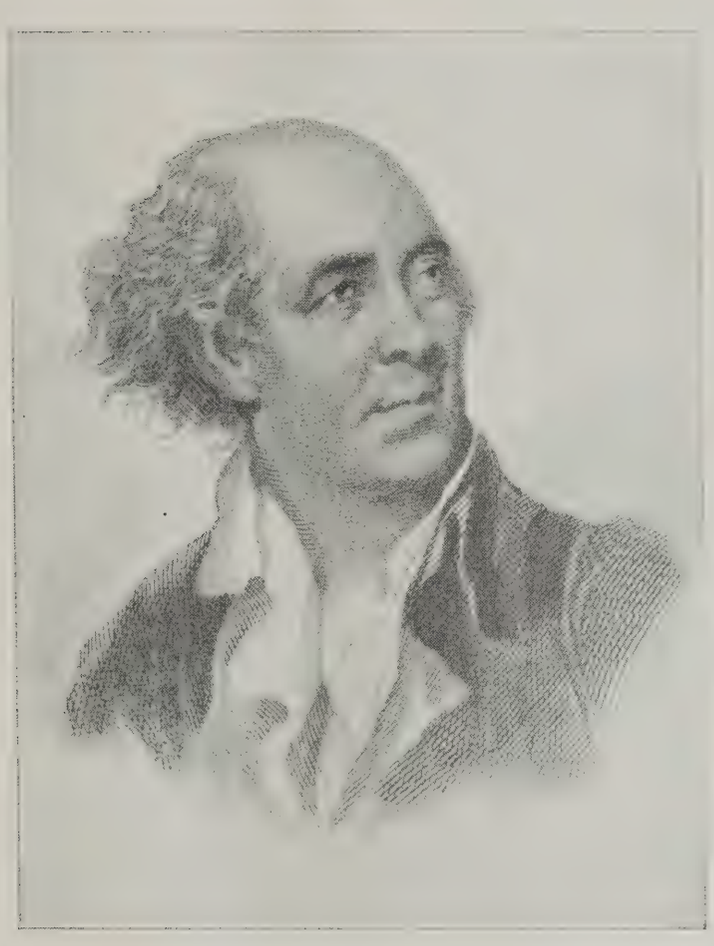
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PRINTED BY EYRE AND SPOTTISWOODE, LTD., HIS MAJESTY'S PRINTERS, DOWNS PARK ROAD, LONDON, E.8.

Wednesday, July 6, 1921. Vol. LIV. No. 1383

THE ARCHITECTS' JOURNAL & Architectural Engineer

With which is incorporated "The Builders' Journal"



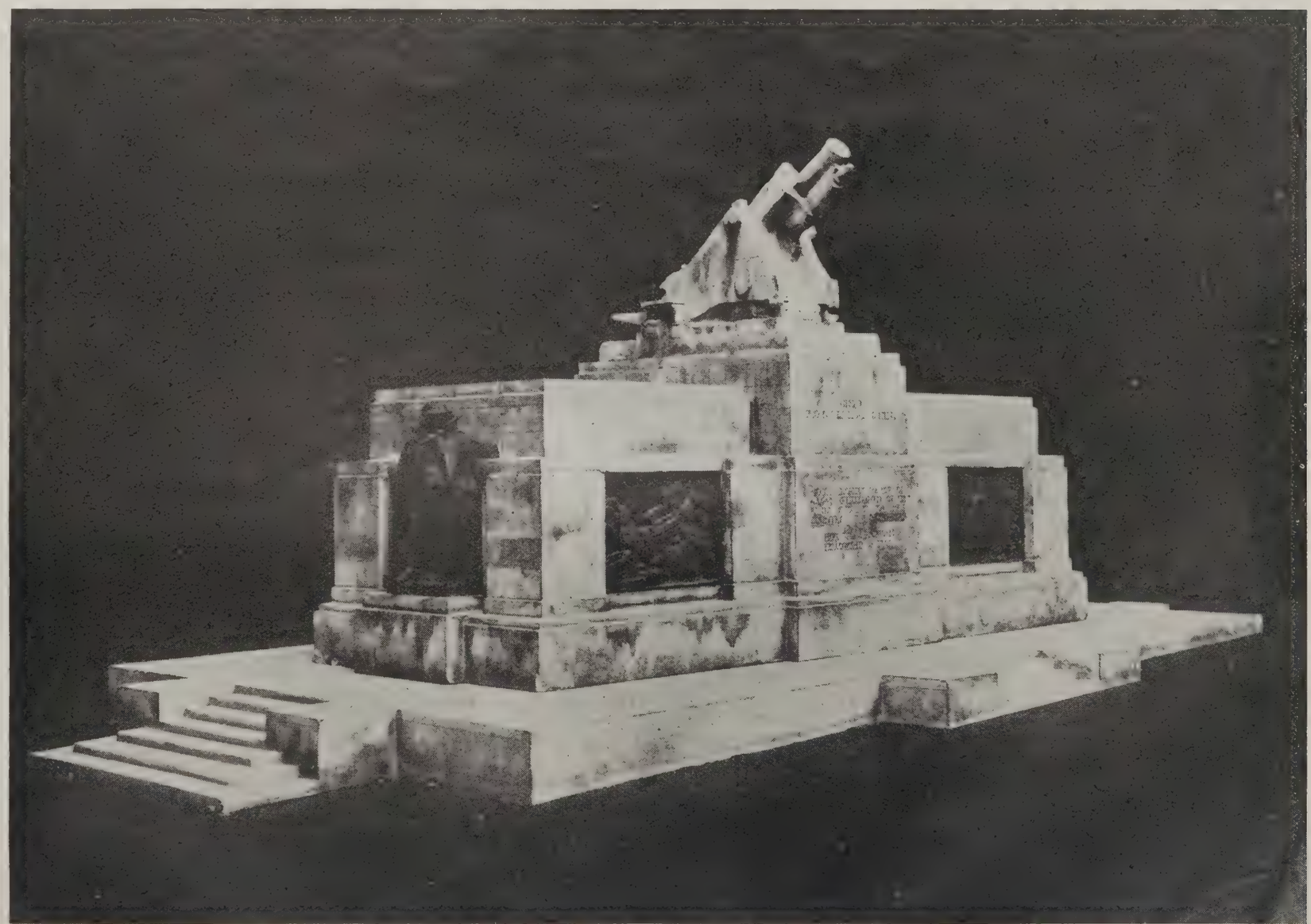
JOHN BACON, R.A. (1740-1799)

John Bacon was born at Southwark, and at the age of fourteen was apprenticed to one Crispe of Bow Churchyard, an eminent maker of porcelain. At the age of nineteen, while still an undistinguished labourer in the shop of Crispe, he had "a model of clay" accepted by the Society of Arts. When the Royal Academy was instituted Bacon, who was then twenty-eight years old, entered as a student, having as companions Banks and Nollekens. In 1769 he received from the hands of Reynolds the first gold medal for sculpture ever given by the Royal Academy. During the following year he received a gold medal from the Society of Arts and was elected an A.R.A. Among his many executed works are four busts of George III, statues of the Earl of Chatham and Lord Halifax in Westminster Abbey, statues of Samuel Johnson and John Howard in St. Paul's, a statue of Blackstone for all Souls Church, Oxford, and one of Henry VI for the Ante-Chapel at Eton, and the monumental groups on Somerset House.

27-29 Tothill Street, Westminster, S.W.1.

War Memorials. 15.—The Royal Artillery War Memorial, Hyde Park Corner, London

C. S. Jagger, Sculptor. Architectural Treatment by Lionel Pearson



The above design, one of two submitted (the other being by Sir Edwin Lutyens), has been approved by the General Committee of the Royal Artillery War Commemoration Fund. The design generally will be executed in Portland stone, and the sculpture, with the exception of the gun, will be in bronze. Further particulars and illustrations are given on page 6.

THE
ARCHITECTS' JOURNAL
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Architectural Propaganda—and the Like

AT the first of the provincial conferences of architects, which has just been held in Liverpool, Professor C. H. Reilly began his amusing paper on "Propaganda and Publicity" with the playful admission that it was not at all clear to him why he had been invited to deal with that subject. Many who avail themselves of the opportunity of reading the paper (it appears on a later page) will share his dubiety. Beyond question the paper is clever and amusing, but, alas! though it is brilliant in flashes it is of low general illuminating power. It is well worth discussion, however.

Rather superfluously, the author began with a grotesque definition of "propaganda" as "an organized scheme for proclaiming one's own virtues and inferentially decrying other people's," and he barbed this arrow with the declaration that "to be a successful propagandist you must not only have no sense of humour, but the hide of a rhinoceros." He then seems to assume that if ever architects got the advertising habit they would catch it badly, and he therefore concludes that "Propaganda we must leave to the market-place and those that work there."

Not necessarily. Why confuse propaganda with blatant self-advertisement? Professor Reilly must have done this to broaden his joke; for, being "a scholar and a ripe one," he knows very well that "propaganda" is a fragment of the phrase *de propaganda fide*, and that even nowadays, as the dictionary reminds us, "propaganda" denotes a "scheme or plan for the propagation of a doctrine or system of principles." This very conference illustrates what we understand by "propaganda." Professor Reilly knows very well also that "advertisement" has, by its associations, more of the air of trade and barter than "propaganda," and a more direct purpose—to propagate the faith in somebody's pills, perhaps.

Having achieved his little joke, the Professor advocated certain means of publicity that would seem to fall easily within the scope of the banned word "propaganda"; for as a scheme for spreading sound doctrines (and no more sinister import can be fairly laid to the charge of the ill-used term "propaganda"), Professor Reilly suggests that an architect in each town might be told off as a critic of architecture, doing for the public what is done in every school of architecture to each student's design! Is it not easy to imagine that this critic would be among the local architects their best-beloved brother? An astute life-insurance agent, however, would promptly increase his premium. Really, the Professor (and in a sense it is greatly to his credit—everyone applauds his enthusiasm for the fine School of Architecture he has created) seems here to conceive of the world as an annexe to Liverpool University School of Architecture!

More rational is a reference to the popularity of an architectural exhibition noted in New York by Professor Reilly a few weeks ago. This effort of the Architectural League of New York may be regarded as an illustration of what we understand by propaganda. It showed one means of educating the public pleasantly, and, as it were, by Montessorian methods. The Professor, however, expressed the opinion that "such exhibitions will do very little good if they are not accompanied by serious criticism in the Press." Agreed, provided criticism of the exhibition is meant; but he seems to be roaming over a more extensive field, and, incidentally, to have set his foot in a morass, when he adds that the technical Press "is too tied to its advertisements to be of much service in this respect." This dark saying grows more and more obscure as one reflects, not without a momentary spasm of regret, that architects do not advertise—not, at all events, with any particular tying-down strength! One cannot divine what the genial Professor can possibly mean by this cryptic reference. Does he intend it as a supplement to his preliminary joke?

Further mystification ensues where the author implies that, even if the professional papers did criticize new buildings, the criticisms would not reach the general public, by whom they are chiefly, if not solely, needed. Then what would be the use of such criticism, we may ask, even when it did not degenerate into unmerited praise or unjust blame? Professor Reilly, we well know, always criticizes with strict impartiality and with conspicuous generosity; but it would be folly to assume all the architectural critics writing in the lay Press to be capable of exhibiting either his knowledge of the subject or the fine temper of his judgments.

How odd to suggest that there could be any parity between the newspaper critic of architecture and the schoolmaster criticizing the drawings of students in a school of architecture! Here, indeed, we have a distinctly humorous idea—the comparison between an actual building designed by a practising architect, and a building (or, rather, a simulacrum of a building) drawn on paper by a student, there being, it would appear, a certain inequality between the respective opportunities for erasure and re-edification. Moreover, the practitioner architect will feel it in his bones that opinion is but a poor basis for a verdict that may cause him cruel suffering in health, reputation, pocket. Then there has to be taken into account a critic's fads and crotchets, so that conceivably a newspaper critic of architecture might rise up to beat the ghastly reputation-wrecking in which the late H. F. Chorley held a bad pre-eminence in the world of music. We do not want to see criticism erected into a tyranny of that sort.

There are, it cannot be doubted, strong reasons why architects generally regard it as bad form for one architect to criticize in the public press another's newly finished work. For one thing, the artistic temperament does not "take correction kindly, kiss the rod," and nothing is more certain than that the average architect resents criticism as an exasperating impertinence. Consequently, in the professional periodicals, British or foreign, there is little or no disparagement of contemporary work. There is, however, a fair amount of judicious praise, which is helpful and encouraging to the architect who can feel that it is honestly, sincerely, and impartially bestowed. On the other hand, is it not good form and good feeling to refrain from dwelling on defects that are probably obvious to the designer, and even to the casual observer, as well as to the critic? Yet it can be fairly claimed that, charity and good-fellowship

notwithstanding, the professional Press, in describing any important new building, seldom fails to give a clear indication of its faults as well as its merits.

The insinuation that the technical Press is influenced in its judgments on current architecture by the question of advertisements is exploded by spontaneous combustion. Architects do not advertise. Further, the professional periodicals illustrate almost every building they describe: criticism of a building that is put before the architect in plan, elevation, section, and detail, would be merely impertinent. The professional man prefers to form his own independent opinion of it, which comes to him spontaneously and instinctively.

Granted that, as the Professor says, the public do not read the professional Press—but we have reason to know that this habit is growing upon them—then, truly, some other means of reaching them should be promptly devised. The Professor suggests direct action—the attachment of an architectural critic to every important lay periodical. This suggestion was anticipated in last week's issue of the JOURNAL, when we enumerated certain objections to it that had been or could be urged with considerable force; and it now only remains to add that whether the net result of the criticism of architecture in the lay Press would be good or would be evil would depend on who did it and how it was done. If it were done justly, humanely, and discreetly, the effect should be wholesome, although sensitive architects—to leave out of consideration those who are morbidly supersensitive—still would bitterly resent it.

Apart from ethical and personal effects, the educational value that is claimed for such criticism would greatly depend on whether it were made interesting and attractive to "the general reader," or whether it were of ditch-water dullness and muddiness; and, again, whether it were entirely fair and honest, or whether it were made the vehicle of favouritism or of spite; or whether the critic was fonder of the scalping-knife than of the butter-trowel; or whether he revelled in vivisection or delighted in rolling the log. It is because, in the domains of painting, sculpture, and music, so much criticism has been in the past utterly mischievous and misleading, that architects, so far as we can discover, are not yearning for its introduction into their domain. They know, also, that criticism is apt to get into a groove, belauding the fashion of the moment, and vilifying or ignoring the work that does not conform to its shibboleths.

Admittedly the public are in great need of guidance in architectural matters; but the propaganda by which it is hoped to lighten their darkness should take some more simple and less subjective shape than formal criticism of new buildings. And by Propaganda we mean not "an organized scheme for proclaiming one's own virtues and inferentially decrying other people's," but the alert and strenuous use of every dignified and legitimate means of opening the eyes of the public to the interest that resides in architecture and the supreme importance of the architect's functions.

Lincoln and Washington in London

Amidst the glut of war memorials, it is refreshing to find here and there one that varies the commemoration. Outstanding instances are the statues that America has bestowed upon us with such charming grace. London should be more than ever "a home from home" to the American visitors, now that Parliament Square and Trafalgar Square have delightedly given hospitality, the one to a replica of St. Gaudens's statue of Abraham Lincoln, the other to a replica of Jean Houdon's statue of George Washington. Jean Antoine Houdon, who was born in 1741 and died in 1828, was born at Versailles, and went to Italy with the Prix de Rome, and executed there the colossal figure of St. Bruno, of which Pope Clement XIV said it would speak did not the rules of its order enforce silence. He executed fine portrait models of Turgot, Rousseau, Lafayette, Mirabeau, Napoleon, and Molière. His monument of Washington was made in 1785. So, between them, Washington and Lincoln, Houdon and St. Gaudens, have given us noble symbols of a Franco-American alliance with which we are delighted to link up by affording the hospitality of two great metropolitan squares.

The Liverpool Conference

It is extremely gratifying to note the unqualified success of the Liverpool Conference. It was a great step towards Unity, was in itself not only a portent, but an actual realization of Unity of a minor sort, because it enabled London and Provincial architects to meet face to face, and, generally speaking, to see eye to eye, to know each other better, and to understand more clearly where interests were identical, and where they happened to clash. Fortunately, the reports of the progress that is being made by the Unification Committee were of the happiest augury—more particularly the statement of the friendly attitude, the one to the other, of the R.I.B.A. and the Society of Architects, since agreement between the two is vital to the whole movement, and to the hopes for Registration. Such reunions as that at Liverpool will at least prepare the foundations for that Temple of Concord to which the President of the Institute so felicitously referred. But there is much hard work to be got through before the edifice is reared.

Sir Rowand Anderson's Bequest

By his will the late Sir Rowand Anderson has left his house in Rutland Square, Edinburgh, some excellent furniture from his house at Colinton, with silver-plate and cutlery, to the Scottish Institute of Architects, of which he was founder and first president. Further, he has bequeathed to the Institute his bust, and his medals, diplomas, and illuminated addresses; and, to crown all, he has given the Institute his extensive library. A half share of the residue of his estate goes to the Institute, and bursaries and prizes to be known as the Sir Rowand Anderson Prizes, are to be a first charge on the income. Sir Rowand is thus acclaimed of the noble company of Sloane and Soane, and the large number of benefactors, major and minor, of the Royal Institute and the Architectural Association. Certainly the Scottish Institute is to be warmly congratulated on having acquired thus early so handsome a home of its own.

A Distinctive Shop-front

A novelty in shop-fronts is nearing completion in a side-street in Westminster. A single sheet of glass forms the window, which is surrounded by a large picture-frame—not of ornate Academy character, but perfectly flat and plain. Its surface, however, is treated with "old gold," and the rich effect is intensified by the black paint with which the surrounding woodwork has been covered. This woodwork includes some elegant Corinthian pilasters, of which the blackness is certainly more effective as a foil for the "old gold" than authentic as an example of classical practice. It seems essential to a right understanding of the scheme to mention that this very distinctive design graces one of Westminster's numerous shops for the sale of "antiques," and the frame forms a most admirable setting for the furniture, china, and so forth, displayed inside. The idea is too happy to be of mushroom growth; but where and when did it originate?

Sir H. H. Bartlett

To Sir Herbert Henry Bartlett, Baronet, who died last Wednesday at the age of seventy-nine, both the profession of architecture and the industry of building are deeply indebted for his many acts of large-hearted generosity. Building trade and other charities have been steadily sustained by his unfailing support; but his crowning act of munificence was his contribution, in 1911, of no less a sum than £30,000 towards the erection of a School of Architecture at University College, London. Sir Herbert's baronetcy dates from 1913, and is inherited by his grandson, whose father, Sir Herbert's eldest son, was swept overboard in an accident to a cross-channel steamer about a year ago. Sir Herbert was for many years associated with the great firm of contractors, Messrs. Perry & Co., of Bow.

Stunts and Standards

IT has come at last. Architecture is going in for "stunts." We use this word, not because we like it —we do not—but because there is no synonym for it, and it needs no explanation. It speaks for itself —usually through a stentorphone. That it no longer shouts with a purely Yankee twang is matter for regret. Of course, we know that in America all things are possible, but we do not want in this country more impossible Americanisms than we can avoid.

"Stunts," it seems, are unavoidable. So we must accept them with the best grace we can. They are certainly now as British as they were once exclusively American. Publicity is no longer barred in England. Far from it. It is a Government institution to-day. Even Dublin Castle has its press agent. No longer is virtue content to blush unseen.

So, it being the rule to make as much noise as you can, it is no matter for wonder that the Mistress of All the Arts has at last decided to step down from Parnassian heights and to shout with the rest. Yet her task is not easy if she is to over-shout her younger and more pushing rivals, like the Dadaists, the Cubists, the Vorticists, and the Futurists, whose bellows are far better than their brains.

Still, with Art given over to "stunts" what can she do? True that Art may soon be given over to the alienists as well, but perchance from the tumult and the shouting there may emerge a new Art, clothed in an ancient sanity. If this be—and we do not doubt it—Architecture will play the leading part as the rescuer of her giddier, and younger, sisters. Meanwhile, if she is to keep herself unspotted from the world, she must move amid the crowd with more discretion than she has so far shown. Let us be frank about it, even at the risk of being misunderstood. It is a slight matter, mayhap, but it is of weighty import.

The Royal Institute of British Architects is aiming at the right goal, but it is going by the wrong road. There is no more vital need in the realm of art to-day than that of making architecture understood of the people. This is the most important task the profession has to face, and it is one that must be discreetly, delicately, and with dignity performed. To awaken an intelligent and instructed public interest in architecture is beyond question the right aim. But to do so by the aid of Post-impressionist artists and paradoxical phrase-makers is the wrong way. It is admittedly picturesque, and it makes people talk. It undoubtedly arouses attention. If publicity were all that was needed it amply fills the bill. So would a lecture to the R.I.B.A. by any man daring enough—or demented enough —to suggest the building of houses upside down.

It is easy to get notices in the lay press if the matter is sufficiently sensational. But sensation does not serve the purpose here. And sanity is never startling, though at the present rate of progress it soon may be. Meanwhile we have to move along sound and sober lines, setting up slowly a general standard of taste that will in a generation or two bring architecture back to her proper place as the first of the Arts. It cannot be done in a day, for it is a matter of gradual education. Publicity will help, and help royally, but it must be a sustained and sober campaign, and not a fiery, fleeting rush of fireworks, that lights up the sky brilliantly for the moment only to leave behind it a deeper and more bewildering darkness.

Architecture is suffering much from public neglect, and still more from popular ignorance. For this the people are not to blame. That they cannot tell a good building from a bad is not their fault. Why should they? They have never been told how to separate the goats from the sheep. No one has bothered about Demos, and Demos, in his darkness, has not even known enough to ask for light. So quite properly the Institute and the Association both have now set out to spread the light, and with most of these efforts to educate the public we are in cordial agreement. But a protest is demanded when such Philistinic professors of Post-impressionism as Mr. Roger Fry are called in to the rescue. The remedy is worse than the disease. To get widespread publicity by such means is to scatter tares where good seed might grow. It will certainly be retorted that Mr. Fry lectured on "The Architectural Heresies of a Painter." So he did, yet how many people knew it? His views had what we believe is known in the technical language of "stunts" as "a good press." The fact that he lectured at the galleries of the Royal Institute of British Architects was widely advertised. His peculiar opinions were fully exploited in the daily newspapers.

If any ordinary reader jumped to the conclusion that Mr. Fry's ideas had official sanction it would be hard indeed to blame them. As a "stunt" his lecture was a decided success. That can be gauged by a comparison with the space given to the other lectures, all of more serious interest and appeal. Everyone knew Mr. Fry had been talking to the architects. How many saw any reference to Mr. Clutton Brock's excellent lecture on "Architecture as Everyone's Concern," for example?

The main result of the experiment has been to give heresy a triumph. It has certainly done little to educate the public. The Architectural Association has also made a bold bid for publicity with Mr. G. K. Chesterton as the chief "stunt" artist. No one would suggest that this master of paradox and of ballads failed to fill the rôle. He certainly filled it fully in every sense of the term. His talk on "A Layman's Views on Architects and Architecture" was brilliant and sparkling. Yet it did not meet the need.

Architecture must to-day have its own voice. Its function is to bring itself into closer relations with the people it serves. The people must be educated. They must be given a proper standard of taste, and this must come from the profession itself. A bad guide is worse than no guide at all. To be without a leader is better than to be misled. Let the Futurists, if they wish, waste their effeteness on the desert air, but do not invite them to scatter their heady fragrance from within the courtyard of Architecture's chief temple. There are better and surer ways of meeting the present need than that. Some of the provincial societies of architects have already found this out. It is along slow and, perhaps, tedious ways that the goal is to be reached, but it is the only sure approach.

If a popular lecturer, whose words would be welcomed by the press, is required, at least let the choice fall on someone fully qualified to speak for architecture. Why not Mr. W. J. Locke? He has the gift of picturesque phrase. He knows how to interest the public. His novels have a world-wide sale, and he has the ear of the Press. Few have a wider knowledge of the art. Need we mention Mr. Arnold Bennett? Both, we are sure, would answer the call; and there are others who could help in the campaign. Yet, while their aid would be invaluable, it is by other and less spectacular means that the main work must be done. The first line of attack against the public indifference must obviously be concerned with that phase of architecture which most directly touches the multitude. The home is clearly the first objective. A series of illustrated lectures on domestic architecture might with advantage be prepared for loan to any public body or educational association. This might be followed by lectures on styles of architecture, and civic and other public buildings.

Local architectural associations could create local interest, as some already are doing. The proper atmosphere would thus be gradually obtained. It would be a long and toilsome business. It would have no spectacular glare. There would be no fireworks. Results would not be easily gained nor readily appraised. But the progress would be solid and real. Instead of "stunts" we should get standards. And, in the end, it is the standard that counts. Taste is slow of growth. It cannot be forced. If it is quick it is dead.

CROSSLEY DAVIES.

Architectural Causerie

The Artillery War Memorial

THERE is elemental strength, elemental simplicity, in the Artillery War Memorial, shortly to be erected on the island site at Hyde Park Corner. Two models were submitted to the General Committee of the Royal Artillery War Commemoration Fund, and both were very much admired; but that of Mr. C. S. Jagger was finally unanimously chosen as being the more suitable for that particular site, which presented peculiar difficulties, all four sides being equally exposed. The design, for which the King's approval has yet to be obtained, will be executed in Portland stone, the sculpture, with the exception of the gun, being in bronze.

The keynote of the memorial is struck in that self-same gun, fitting symbol of the regiment it commemorates. The sculptor was given a free hand by the committee, with the one reservation that the memorial should suggest obviously and distinctively the achievement of the Royal Artillery, and this condition has been amply fulfilled. "A whacking big gun," said Mr. Jagger, "that's how I saw it, mounted on a massive emplacement—the conventional architectural pediment was no good." And a "whacking big gun" it is, pointing down Piccadilly, flanked by the figures of the men who served it. The architectural treatment is by Mr. Lionel Pearson. Mr. Jagger, it will be recalled, won the Prix de Rome scholarship for sculpture in 1913.

The R.I.B.A. Garden Party

About a thousand members and guests attended the garden-party given by the R.I.B.A. in the Zoological Gardens on Tuesday week last. The reception was held in the Library of the Zoological Society from 4 to 4.30 p.m. by the President, Mr. John W. Simpson, Mr. E. Guy Dawber, and Mr. Arthur Keen, after which tea was served on the Great Lawn and Fellows' Enclosure, which were specially set apart for the use of members and guests. The weather was perfect, and a thoroughly enjoyable afternoon was spent, not the least of its delights being an excellent programme of music rendered by the band of the Irish Guards. Among those present were Lord and Lady Riddell, Viscount and Viscountess Milner, Mr. Justice Eve, Lady Eve, and Miss Eve, the Dean of St. Paul's and Mrs. Inge, Mr. W. R. M. Lamb, Secretary to the Royal Academy, the Earl of Plymouth, Mr. G. Topham Forrest, the Lord Mayor of London and the Lady Mayoress, Mr. Marion H. Spielmann, Sir Lawrence and Lady Weaver, the Secretary, Board of Education, Sir Isidore and Lady Spielmann, Sir Philip Pilditch, Sir David Murray, R.A., Sir Aston Webb and Lady Webb, Sir Reginald and Lady Antrobus, Sir James Carmichael, Sir Israel and Lady Gollancz, Sir Ernest George, R.A., Sir Arthur and Lady Cope, Mr. Ernest Newton, R.A., Mr. W. G. Newton, Major Harry Barnes, M.P., and Mrs. Barnes, Dr., Mrs., and Miss Walsh, Mr. C. Harrison Townsend, and many others.

The President's Dinner Party

On June 28 Mr. John W. Simpson celebrated the close of his term as President of the R.I.B.A. by giving a dinner party at the Garrick Club to his colleagues on the Council and other friends. The guests included: Mr. Walter Cave, Mr. E. Guy Dawber, F.S.A., Professor S. D. Adshead, Mr. Arthur Keen, Major Harry Barnes, M.P., Mr. Max Clarke, Mr. H. P. Burke Downing, F.S.A., Sir Banister Fletcher, Mr. W. Curtis Green, Mr. J. J. Joass, Mr. Geoffry Lucas, Mr. A. N. Prentice, Mr. H. D. Searles-Wood, Mr. Horace Cubitt, Mr. W. R. Davidge, Mr. E. Stanley Hall, Mr. Ernest Newton, C.B.E., R.A., Mr. H. T. Buckland, Mr. H. G. Watkins, Mr. Maurice E. Webb, D.S.O., M.C., Mr. J. S. Gibson, Mr. E. Vincent Harris, Sir Edwin L. Lutyens, R.A., Mr. Sydney Perks, F.S.A., Mr. Stanley Hamp, Mr. W. G. Newton, M.C., Mr. Ian MacAlister, Secretary R.I.B.A., Mr. Maxwell Ayrton.





THE ROYAL ARTILLERY WAR MEMORIAL, HYDE PARK CORNER, LONDON: FIGURES ON FLANKS.
C. S. JAGGER, SCULPTOR. ARCHITECTURAL TREATMENT BY LIONEL PEARSON.

Architectural Office Administration

By FRANCIS LORNE, A.R.I.B.A.

(*Continued from page 791, No. 1382*)

Filing of Specifications

Great care should be observed in the preparation of specifications. The various items described should be subdivided as much as possible, one paragraph to one item, and not all grouped together in one large paragraph, as is usual with specifications. The entire specification should be prefixed by an index, the heading for each paragraph appearing in this index. In this way it will be much easier to get access to an item in the specification when wanted. The index of headings should, of course, be in alphabetical order, and each paragraph numbered. A good margin should be left at the side for binding up the specification, and it is desirable that the headings to paragraphs should appear on the right-hand side of the sheet, as they can be more easily seen on opening the book of the specification.

Specifications of the various trades involved in a building operation can be all bound together in one volume, or kept separate and filed. If they are bound together they can, of course, be kept on a shelf, and reference to them is very easy. If they are kept separate, it might be better to keep them in vertical files somewhat similar to the correspondence file.

Some offices make a practice of having the specification printed, and made up in the form of a book. This is the ideal, of course, but is a little more expensive.

Filing of Photographs

It has frequently been found useful to keep a file or a series of albums of photographs of work done by the office. It is useful in discussing matters with a prospective client, and also useful for record in the office. A large-size album to take a full plate photograph is probably most convenient. One photograph to a page is advisable, and when the pages are numbered and an index inserted on the first page an exact record can be kept for easy reference.

Filing of Architectural Magazine Plates

Frequently in looking through architectural magazines illustrations are encountered of sufficient merit to be worthy of preservation, but these illustrations are only useful if they can be had when wanted. They should be stored in a file similar to a correspondence file, where the plates can be subdivided into folders under various headings, such as clubs, hotels, schools, town halls, etc. If these files are placed in alphabetical order in the file, reference to same is easy.

SECTION 4

Accounting

Accounting in most architects' offices is done half-yearly or yearly by auditors, and the method of book-keeping that the average architectural practice demands is merely the keeping of sufficient records for the use of the auditors for these six-monthly or yearly statements.

Architectural book-keeping is considerably simpler than that demanded by a business firm. The largest item, of course, is the payment of the staff for architectural services rendered, and a record of this should be carefully kept by means of adequate time-sheets, and transferred from these weekly or monthly sheets as the case may be to a time cost statement, and eventually to a building cost statement.

Time-sheets

Forms Nos. 24 and 25 show typical methods of recording the time spent on any work in the office. As much detail as possible should be put on the weekly time-sheet by the draughtsman, he being careful to keep net time and overtime separate, as shown on the form. It is desirable that payment of salaries should be made every four weeks, for two reasons.

GORDON & HENDERSON. ARCHITECTS.

WEEKLY TIME SHEET

NAME. James Thompson. WEEK ENDING 23rd MONTH. Feb. 1926.

JOB.	NATURE OF WORK	NETT TIME. MON.	TUE.	WED	THU.	FRI.	SAT	TOTALS	OVERTIME
Buchanan House.	Ceiling Living Room.	7.			3.			10.	2.
Barker Store.	3/4" Detail Facade.		7.		4.			11.	
Academy of Music.	1/8" Gd. Floor Plan.					7.		7.	1.
OFFICE WORK.	Correspondence.						3.	3.	
HOLIDAYS.	Public Holiday.			7.				7.	
TOTALS		7.	7.	7.	7.	7.	3.	38.	3.
							HOURS FOR SALARY.	41.	

FORM No. 24.

1. A considerable reduction in labour is made on the four-weekly basis over the two-weekly to the secretarial staff.
2. If payment is made regularly every four weeks the accounting is considerably simplified rather than when payment is made once a month. The irregular length of the various calendar months in the year entails in a monthly statement the calculation of an average over a year's work, and a considerable confusion in the accounting, which is very clear to one who prepares a building cost statement on a monthly basis.

The time-sheet noted on form No. 25 is taken on such a basis of four weeks or one month of twenty-eight days.

Time Cost Statement

From this form No. 25 information is gathered for the time cost statement shown on form No. 26. This form can be extended indefinitely to cover the number of building operations which a firm may have under way. In this case five operations have been assumed. The name of each person employed by the firm is set down as shown, with the actual money value of their time spent on each building operation, as well as the time spent on overhead and any direct charges to a client which any person in the firm may have incurred. Column "total paid" shows the actual sum of money paid on the four-weekly basis to each person. In the lower part of the statement the upper part has been condensed under the headings of "partners," "drafting," "overhead," and "direct charges." The column for "overhead" covers all overtime, lost time (such as time lost in sickness, on vacations, etc.), and the time of the secretarial staff which is spent in varying proportions on all work in the office. It is usual to take the sum total of this overhead, and apportion it to the various "building" and "time cost statements," according to the size of the operation and time devoted to it. (This form will be published next week.)

(To be continued.)

The New Council of the R.I.B.A.

On July 1 the newly elected Council of the R.I.B.A. came into office. The new President, Mr. Paul Waterhouse, F.S.A., is the son of the late Alfred Waterhouse, R.A., whose buildings in London and Manchester are so well known. Mr. Waterhouse succeeds Mr. John W. Simpson, whose presidency during the last two years has been marked by a great increase in the activities of the Royal Institute and by the successful development of a scheme for the unification and registration of the architectural profession under the aegis of the Royal Institute.

By a pleasant coincidence one of the new Associate-Members of the Council is Mr. Michael Waterhouse, M.C., the eldest son of the new president. Other well-known members of the new council are Sir Edwin Lutyens, R.A., the newly elected Royal Gold Medallist and architect of the Cenotaph and the new Delhi buildings; Major Harry Barnes, M.P.; Mr. E. Guy Dawber, the well-known domestic architect; Sir Banister Fletcher, ex-sheriff of the City of London; Mr. H. V. Lanchester, the famous town planner; Mr. Sydney Perks, the City Surveyor; and Mr. Gilbert Scott, A.R.A., architect of the new Liverpool Cathedral.

GORDON & HENDERSON. ARCHITECTS.

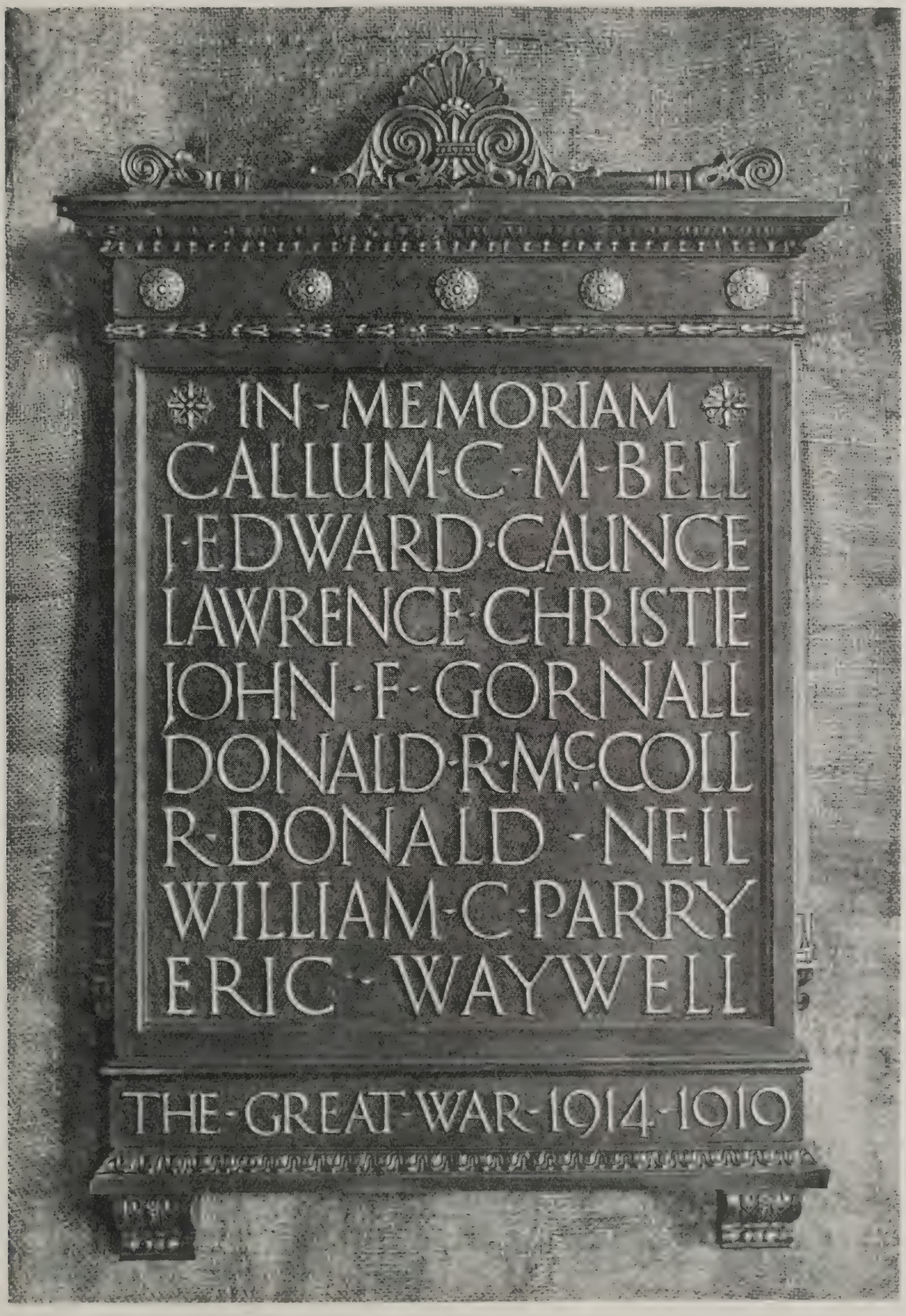
MONTHLY TIME SHEET.

NAME. James Thompson. MONTH. Feb. 1921.

JOB	WEEKLY ENTRIES. 1.	2.	3.	4.	TOTALS.	RATE.	AMOUNTS. £.	S.	d.	FOLIO.
Rucland House.	5.		15.	10.	30.	3/-	4	10	-	10
Barker Stone.	10.		8.	11.	29.	3/-	4	7	-	✓
Academy of Music.	10.	10.	7.	7.	34.	3/-	5	2	-	✓
Filene Stone.	5.	8.			13.	3/-	1	19	-	✓
Midland Bank.	3.	20.	8.		31.	3/-	4	13	-	✓
		FORM No 25.								
NETT TIME.	33.	38.	38.	28.	137.	3/-	20.	11.	-	✓
OFFICE TIME	3.			3.	6.	3/-	-	18	-	✓
OVERTIME		2.		3.	5.	3/-	-	15	-	✓
LOST TIME	2.			7.	9.	3/-	1	7	-	✓
OVERHEAD.	5.	2.		13.	20.	3/-	3		-	✓
GROSS TIME.	38.	40.	38.	41.	157.	3/-	28	11	-	✓

Details of Craftsmanship. 12.—Memorial Tablet in Garston Congregational Church, Garston, Liverpool

Designed and Executed by E. Carter Preston



Excellent alike in design and craftsmanship, the above tablet is a good example of appropriate treatment for a small-scale memorial, the principal purpose of which is to record names of the fallen. The tablet is of green bronze, cast, the lettering being gilded.

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Propaganda and Publicity*

By C. H. REILLY, M.A., F.R.I.B.A.

[T is not at all clear to me why I have been asked to read a paper on " Propaganda and Publicity," especially hen there are present here such recogized experts in these arts as the leaders f the Architectural Association. Not nly do they know how to handle the lay s well as the professional press, but they ave recently joined hands with that great ackbone of English commerce, the cocoa akers, the soap boilers, and the patent edicine venders, in openly proclaiming he virtue of their wares by public adverisement. We have all received a prospectus in which we are told that their chool of architecture is not only the argest, but the most important in the ountry. That seems to me a very good, hough possibly an unintentional, example f propaganda in the new sense which the ar has given to the word. Indeed, propaganda might now be defined as an rganized scheme for proclaiming one's wn virtues and inferentially decrying ther people's.

Is Propaganda Necessary?

Do we want propaganda therefore in onnection with architecture at all? I enture to suggest we do not. None of us would care to be concerned in any rganized scheme for proclaiming that ur modern architecture is better than hat of other countries or other ages. We re all much too conscious of each other's nfirmities to do it wholeheartedly. To e a successful propagandist you must ot only have no sense of humour, but he hide of a rhinoceros.

The commercial gentlemen who plaster ur walls and flood our press with the virue of their wares really inhabit a different lanet to ourselves, and even they often ide their personalities under a pseudonym. do not know whether there is or ever as a real Mr. Dunlop, with his grey eard and immaculate trousers, or a real ohnny Walker, with his eyeglass. But magine, sir, what might happen to you ersonally if the Institute took to adverising the advantage of employing its nembers by publishing pictures of its resident. You would become standardzed, like the famous K.C. who is for ever dvising folk to take someone's pills, or he clean-shaven young man who breaks he hearts of young women in the tubes y looking at them over the edge of an rrow collar. You would never be llowed to grow old; your wife and family ould tire of you, your colleagues would e afraid to walk with you in the street. o, we cannot proclaim the virtues of urselves or our buildings in the mass. ropaganda we must leave to the marketlace and those who work there. But hat does not mean that we cannot do nything to educate the public as to hat is good architecture, and having ducated it, let those who are fit to enefit.

At present architecture is much too uch of a mystery. It is our own, or ather our predecessors', fault. Books on architecture have in the past fallen into two groups. First there were those of the old men, mainly Italians, who followed the method of Vitruvius. They wrote elaborate treatises full of rules and proportions. These were much too dull for the layman to read. He merely looked into them, and imagining that the architect read them, which, of course, he didn't, thought the whole matter was some esoteric mystery rather like the popular ideas at the present time of relativity. Then came the Ruskin school. They made architecture easy, or apparently easy, for the public by turning it into a peg on which to hang ethical discourses. Your parson, under his plaster vaulting, could preach with fervour of the lamps of truth and sacrifice. But I am afraid the public were no nearer understanding the essentials of our art, and we did not enlighten them.

When new buildings were put up in our towns we did not tell them which were the good ones and which the bad. We do not even do so to-day. Our technical press is afraid to tackle the task, and the lay press is too ignorant. In painting and sculpture the matter is quite different. Every daily and weekly paper throughout the land feels that it is part of its duty to criticize new pictures and sculpture wherever they appear. It is only of architecture that they are shy; and yet, of course, it is architecture which affects the daily lives of their readers to a far greater degree than the other arts. The educated layman would be ashamed to have no views about painting, music, and the drama; but he is quite prepared to fall back on his personal likes and dislikes when it comes to architecture. And with no public opinion to hold us in check, we ourselves are apt to rum amok. Oxford Street and Regent Street, to take prominent cases, are becoming fine examples of good F.R.I.B.A.'s and A.R.I.B.A.'s all running amok to their hearts' content.

Educating the Public

Of course, the main remedy lies in the education of the architect, a subject we are only now beginning again to take in hand at all seriously. But that is a long and slow process, and none of us may live to see the results. In the meantime our towns may, and probably will, be spoilt and the best jobs, as usual, go to the wrong people. Is there anything we can do in the meantime to educate the public and at the same time to put some control on ourselves? I think there is. I suggest three things, all of which, I think, would be practically useful. They are: (1) That architects themselves should publish in the lay press the same kind of reasoned criticism of prominent new buildings which they make to each other in private. Let one or more of them in each town become public critics of architecture. Let them explain at large why the character of such and such a building is good or bad, how it composes or does not compose, whether the detail is consistent or inconsistent, whether the materials used are suited to the town or not. Let him, in short, give the sort of criticism that is given in every school of architecture to each student's design. In doing this he will probably tread on endless toes, but he will at once awake interest.

I have ventured to do it myself for Liverpool, and I know; I must say the architects in this town have taken it all in excellent part. As far as I am aware, no attempts have been made on my life, and, on the other hand, some architects have even got jobs through my articles. One or two buildings which seemed to me unworthy of their sites have already been refronted. The public is extraordinarily ready to be instructed. I have been told of schools and clubs which have made expeditions with my cuttings in their hands, looking at each building in turn. Educated people have said to me that for the first time they realized that ordinary shopfronts and business premises fell within the domain of architecture, which till then they thought only applied to churches and town halls. Such people, I hope, would now be careful in choosing an architect for a shop where before they would have treated it as on a par with choosing a solicitor or an accountant.

Exhibitions and Criticism

(2) Another method of stimulating public interest, which we do not, in my opinion, use sufficiently, is the method of public exhibitions, with the criticism which follows them. The Americans are much better at this than we are. I was very struck on visiting New York a month or two ago with the exhibition of the Architectural League of New York which was being held at the Metropolitan Museum in Central Park—their National Gallery—or rather, I should say, I was very struck with the people leaving it. Unfortunately I arrived on a Saturday afternoon, just as it was closing; but I was met by a crowd of motor-cars in long files such as we should hardly see at a private view of the Academy. I made inquiries about the exhibition, and was told it consisted of photographs, models, furniture, fittings, tapestries, and a few drawings. I gathered that it was the photographs and furniture that most appealed to the public. The exhibition had been on for a week when I missed it, but I discovered that all the great New York dailies had treated it as one of the most important exhibitions of the year, and obviously its popularity was keeping up. I suggest that the local architectural societies could in every town hold an annual or six-monthly exhibition of architectural photographs and accessories in the local gallery; and if they took a little trouble with the handling and avoided too many plans, elevations, and detail drawings, they could make such an exhibition of general public interest.

It must be remembered that the immediate success of such papers as " Homes and Gardens " shows that there is already a keen interest in the interiors, at any rate, of their houses taken by the general public, and that this interest, if fostered, would soon spread, first to the exteriors, and then to the larger buildings. But such exhibitions will do very little good if they are not accompanied by serious criticism in the press. The technical

* A paper read before the Conference of the R.I.B.A., eld in conjunction with the Liverpool Architectural ociety at Liverpool.

press is too tied to its advertisements to be of much service in this respect; and besides, it is read by the wrong people. Informed criticism will not at first be given in the public press unless some architect is willing to give up the time to do it. If such a man can be found, I am quite sure the press will be only too glad to employ him. Eventually one may hope that a lay architectural paper, in the true sense of the word—not one dealing with how to convert coal scuttles into lampshades, or *vice versa*—will arise, as "The Architectural Record" has arisen in America, and be read by the public at large.

My final suggestion is a very old one, but one which, while it flourishes in France and America, has not yet been adopted in this country. It is that the profession itself should in each centre annually crown the building which it considers the best erected in the year. In America this is done by means of a certificate which the local Chapter of the American Institute grants. The recipient of this is prouder of it than of any initials after his name. He generally frames and hangs it in his office. But this is the least important part of the project. The important thing is that the local press take a great interest, too, in the building so crowned. It is photographed, and the photograph appears in all the Sunday editions alongside the photographs of popular actresses and eminent criminals. The building is a marked building, the owner is delighted, the architect happy, and the cost is only the cost of the parchment. But the public are stimulated. They go and look at the building, and articles probably appear explaining its good points and why it has been chosen.

In France, I believe, they go further, and remit a proportion of the rates on such a building, considering it to be—and rightly—a benefit to the town. We may in time come to that; but, whether we do or not, it should be easy to take the first step and *grant the certificate*. If we were really moral people, with the true interest of our cities at heart, we should go further and grant certificates of condemnation to the thoroughly bad buildings; but I am afraid at that point our courage would fail us. So I leave the subject just when it becomes really interesting, hoping others will have been stimulated to take it up, particularly my expert friends of the Architectural Association.

The Liverpool Conference: Some Impressions

IN the beautiful Georgian suite of rooms designed by Wood of Bath, the members of the first R.I.B.A. Conference received a civic welcome by the Lord Mayor at the Town Hall, Liverpool, on Friday week last.

Liverpool as a city is eminently suited for conference purposes, with its fine classical buildings by Elmes and Cockerell and those modern masterpieces, the cathedral by Gilbert Scott and the Cunard Offices by Messrs. Willink, Thicknesse, and Mewès and Davis, formulating the necessary atmosphere. Remembering all these things and the energies of the local architectural society (the oldest provincial society of its kind), one cannot wonder that such a compliment as the first R.I.B.A. Conference should have been paid to this progressive city.

The Walker Art Gallery was chosen as the headquarters, and here the Conference was formally opened amidst an attractive exhibition of students' drawings, representative of the work done during the past session by the University School of Architecture and Civic Design. Splashes of vivid colour and sombre monotones gave a most delightful impression. At one end of the room in black frames the work of the first British Prix de Rome winner, Mr. H. C. Bradshaw, was hung—a fine set of drawings showing a restoration of Sallas's great monument at Praeneste—unique in their presentation and draughtsmanship, and wonderful in their archæological research and imaginative restoration. Practically covering the whole of the adjacent wall, the colossal Rome Competition drawings were exhibited. The subject was a National Pantheon. E. R. Arthur's scheme is of special merit, being one of great archectonic competence, full of character and masterly detail; this student has already appeared twice in the final Rome competition and promises to be a keen competitor next year.

The President's (Mr. Simpson's) paper on "Unification and Registration of the Architectural Profession" came first. This much discussed problem was very clearly stated, and it was satisfactory to hear directly from the President that the Institute faithfully intended, when all architects are on their register, to proceed to draft out a Registration Bill, to be prosecuted in Parliament as vigorously as possible.

The next paper, by Professor C. H. Reilly, M.A., F.R.I.B.A., was one of a very breezy character on "Propaganda and Publicity." As a beginning there came a rather boisterous attack on the Architectural Association, cleverly replied to at the end of the paper by the A.A. President, Mr. Newton.

The full text of the paper is given in this issue. The address proved to be the most interesting one of the whole conference—full of good-hearted humour, critical, advisory, though perhaps slightly contradictory.

After lunch the members of the conference went by charabanc to Planters Factory, a magarine works near Port Sunlight; this visit was not so interesting as it might have been, the plant being at a standstill. The heat being intense, the most favoured spot was naturally the cold storage department. After this somewhat monotonous spell the party were driven back to Port Sunlight, which was duly inspected. Later, tea was kindly provided by Messrs. Lever Bros., Ltd., in Hulme Hall.

The official dinner was held on Friday evening at the Midland Adelphi Hotel, undoubtedly the most suitable hotel in the city for an architectural banquet. Unfortunately, the Brownlow Hill side entrance had to be used, members missing Mr. Atkinson's fine vestibule and palm court. The after-dinner speeches were of the highest order. The Lord Mayor, in proposing a toast to the Institute and the Liverpool Architectural Society, was in a most complimentary mood, and spoke well of architects, specially of the University School of Architecture, virtually promising a larger corporation donation when financial conditions became less oppressive. The President replied, showering praise on the Liverpool buildings, and urging that if the public would try to understand architecture as they tried to understand music, painting, and literature, they would find it had as great and inspiring a message for them as any of those arts, greater, indeed, for it entered into the daily life of everybody.

Mr. H. T. Buckland, in proposing a toast to the guests, suggested that the British Municipalities should follow the American example and appoint in each city Art Commissions, composed of men who were qualified by special training to advise them in the choice of designs for all important buildings and public improvements.

Saturday, the second day, was opened by a paper by Mr. H. D. Searles Wood, F.R.I.B.A., on "Building Contracts." In the absence of the author this paper was read by Mr. T. T. Rees. The subject did not seem at all suitable for such a hot day, and the paper seemed to be nineteen-twentieths quotations from "Rivington." Confessedly it was dull, and no discussion followed.

Mr. L. B. Budden, M.A., A.R.I.B.A., gave an excellent paper on Architectural Education, summarized in last week's issue. The paper aroused great interest, and long discussions followed.

"Official Architecture," by Mr. Maurice E. Webb, ended the morning session. This was the most discussed paper of the entire conference; it was interesting to have a few facts and figures about the inward workings of the Office of Works. With salaries at half a million a year we ought to be getting some very academic designs for new G.P.O.'s.

During the course of the afternoon a visit was paid to the Cathedral. Mr. Gilbert Scott, A.R.A., the architect, described the building, pointing out the difficulties in construction. One realizes more and more that Gothic architecture is essentially a purely constructional style. A full explanation was given of the change in design from double towers to one central tower.

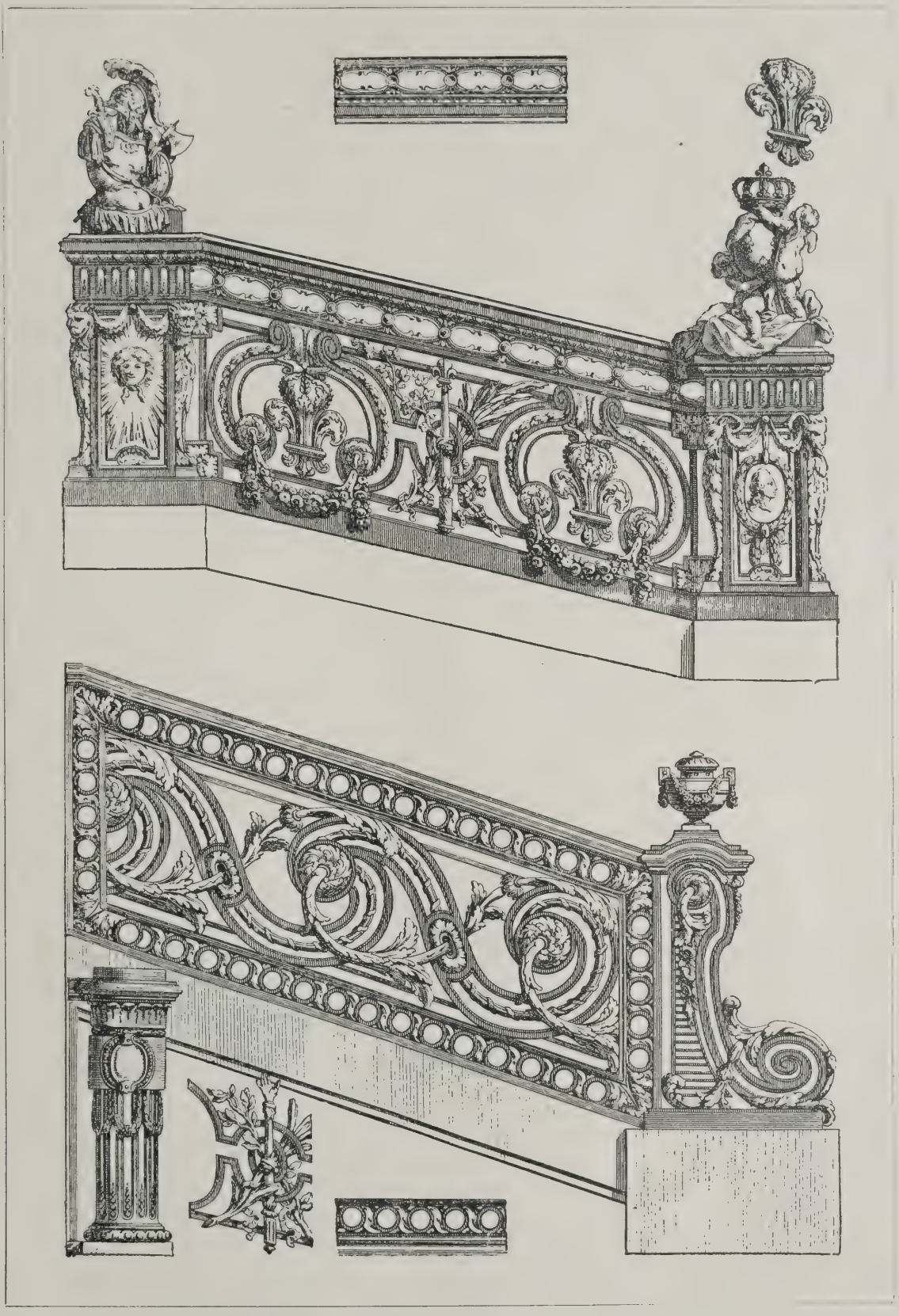
A visit was also paid to the Cunard Shipping Company's Offices at the Pierhead. Certainly this work comes up to expectation, although in some places it fails in the detail; the new exterior lamps, for example, are really not worthy of their position. One recognizes in many of the features the delightful touch of Mewès and Davis. Tea was served in the Britannia Café, which occupies part of the top story, at the invitation of Messrs. Willink and Dod.

As a final outing a river trip had been arranged. A White Star Company's tender, arrayed in brightly coloured bunting and awning, sailed down the river as far as Formby Point. This proved a most delightful function.

A. E. HOLLIDAY.

(Summarised reports of papers read at the Conference are given on page 27)

French Metalwork. 15.—Louis XVI. Staircase Balustrades



These examples of French eighteenth-century metalwork show all the characteristics of the Louis XVI period—strength and vigour of form, and richness and delicacy of decorative detail. They offer a wealth of suggestion for modern decorative treatment.

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Book Notices

Structural Engineers' Pocket Book

The object of this volume, as stated in the preface, is to give a digest of structural theory and methods of calculation, together with such tabular data as is essential in general practice, and references to the literature of the subject to enable engineers to consult authorities and to study formulæ and theories in detail.

The treatment of some of the more intricate items of structural theory amply fulfils the promise of the preface. The section on arch stresses, in particular, gives a neat epitome of what appear to be the author's researches supplemented by a bibliography of the works of other investigators. The theory of a number of difficult subjects, such as continuous and fixed girders, columns, hopper-bins, earth and water retaining walls, steel chimneys, curved girders, portal stresses, etc., is similarly condensed into useful and handy form convenient for speedy reference; although, with the exception of dams and hopper-bins, the references to authorities, especially to British writers, are not numerous.

The treatment of matters which occur more frequently in the work of the structural engineer is, however, less satisfactory. Matters of no small importance are not infrequently dismissed with mere statements of opinion, unsupported by reasons or by the citation of authorities. Practical engineers do not, as a rule, base their dimensions and scantlings upon the theories of others, but upon their own—upon theories which they have have accepted only after critical study, upon mathematical deductions which they have checked, and upon data which they are reasonably sure of, and have tested against the results of their own experience.

For example, on p. 101 it is stated that the assumption of a wind-pressure of 30 lb. per foot sup. is quite adequate in this country if it is treated as a dynamic or live load. The engineer who has studied the wind-pressures which would necessarily overturn railway trains or ancient structures, and who recognizes that assumed wind-pressures are based upon the readings of instruments which record the full dynamic effect of gusts, will undoubtedly require much convincing before he doubles the liberal L.C.C. specification.

A very useful feature is a fairly comprehensive list of standardized scantlings for steel roof trusses of varying span and spacing. It would, however, be useful to know what dead loads, wind-pressures, and suctions have been assumed in the calculations. The comparatively flat pitches dealt with would apparently be subject to wind suction in both the windward and leeward slopes.

A considerable amount of tabular data is given, but some of it, such as metric conversion tables, and the horse-power transmitted by shafting at varying speeds, is somewhat remote from the ordinary practice of structural engineers; whilst steel joist and concrete floors, and, in fact, the whole subject of reinforced concrete, is omitted altogether.

Some fairly obvious misprints are apparent, noticeably the somewhat dangerous displacement of a number of decimal points in the tabulated safe-loads on timber columns on p. 257; but no errata notes are included. The volume should be a valuable *aide-mémoire* for practising engineers with regard to matters which do not occur frequently in the course of everyday practice. The type and illustrations are excellently clear.

The Structural Engineers' Pocket Book. By E. S. Andrews. 356 pp., 7¼ in. × 4 in. 18/- net. B. T. Batsford, 94 High Holborn, London.

Modern Practical Joinery

The writer of these notes started his architectural life with a year's work in a joiner's shop, varied by spells of fixing on the job. It was an excellent start from the practical point of view, and it had the further advantage that, in the work of designing and supervision which was to follow, the men one had to meet on the job were intimate types. As the success of the architect depends in the end on the men who are to translate his design into bricks and mortar, it is a very desirable thing that there should be close co-operation between them. It is doubly desirable that the men should feel that the architect "knows his job" sufficiently to know good work when he sees it. How he is to do so, with building the complex business that it is to-day, is a question which we do not care to answer, but so far as joinery is concerned we do not think there is any better exemplar than Mr. Ellis's book.

Mr. Ellis was an instructor at the Trades Training Schools in Great Titchfield Street, maintained by the Carpenters Company, and he was "setter out" as well for many years for Messrs. Holland and Hannen. We think it is this latter experience which has given Mr. Ellis's book its distinctive character and value. It shows work set out as it will be made in a modern wood-working shop, not as one hopes or assumes it may be made.

The book is published in three volumes, the first of which deals with Drawing, Tools, Workshop Practice, and Processes, Joints, Machines, etc. In this Part I Mr. Ellis gives very practical details of all the old hand tools, but, in addition, there is a very valuable account of machine methods, with interesting illustrations of wood-working machinery. There can be no doubt that anyone who is designing joinery should know something about the means by which it will be made. It is a vexed question if anything good can be produced by machinery, but it is an absolute certainty that progress cannot be made by designs founded on hand methods which are obsolete and will not be followed in the actual production.

The second part of Mr. Ellis's book treats with Constructive Joinery and Fittings for Houses and Special Buildings. There is a splendid range of drawings of ordinary fitments like doors and windows, and, in addition, many examples of the other things, like airtight show-cases for museums, wall-cases for public libraries, bank desks, and so on, all of which are not usually illustrated in the text-books.

The third part deals with New Methods, Firemen's Work, Stair-building, and Timber.

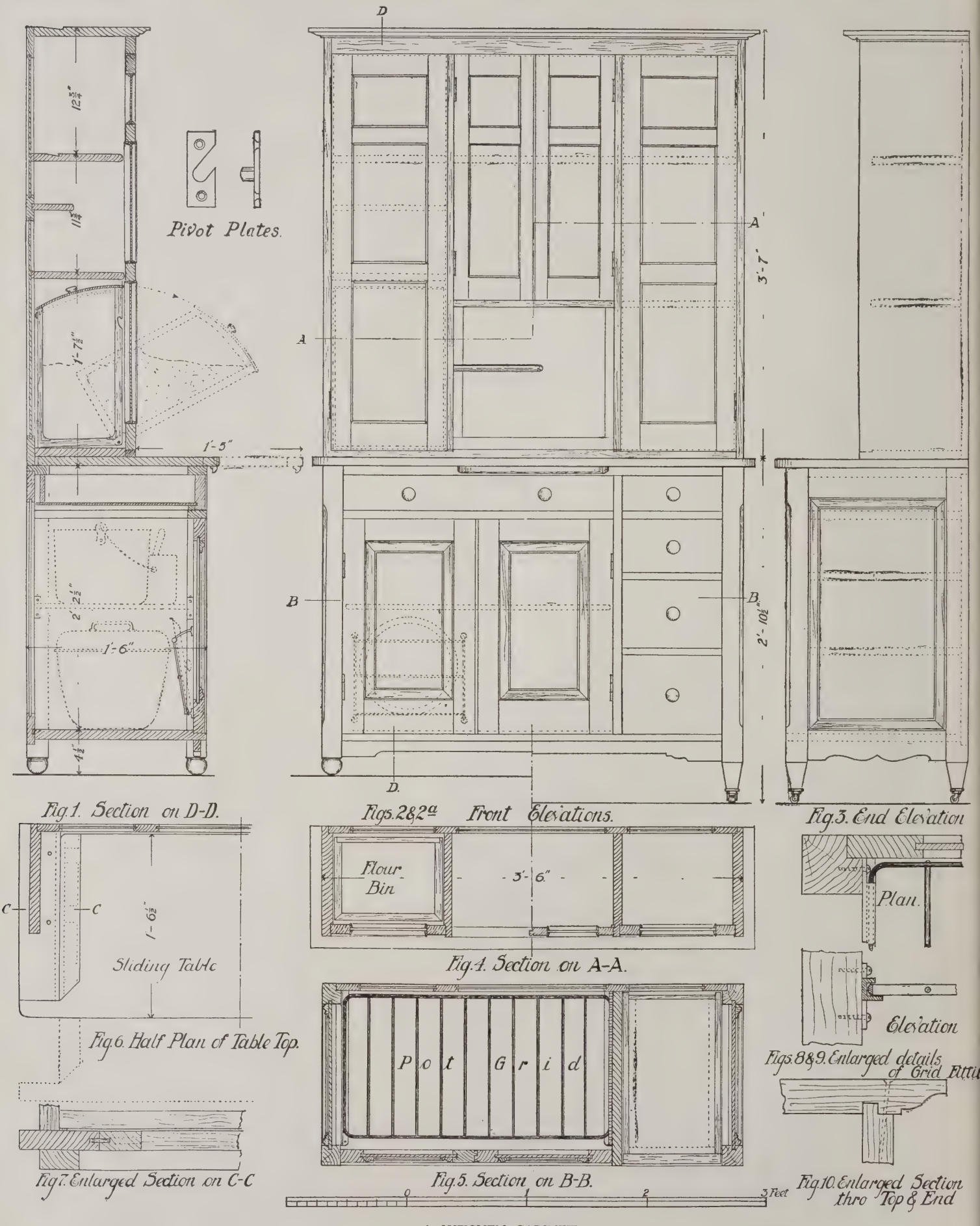
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MR. GEORGE ELLIS "SHOOTING JOINTS"

(From "Modern Practical Joinery")

We should like to feel that all the architectural students would read this book. Joinery is such delightful work. If masonry is the noblest craft of all, then joinery is the homeliest and most pleasant. Up till 1914 it rested on a foundation and tradition of handicraft, but the war meant loss of life, and consequent loss of skill. As a result, machinery will probably play a larger part in the future production of joinery than it did in pre-war days, and the new methods demand



A KITCHEN CABINET

(From "Modern Practical Joinery." By George Ellis)

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new ideas in designing. If the student could firmly fix in his, or her mind the nature and growth of timber, the various methods of dealing with it by sawing, planing, moulding, and jointing, and the machines by which these processes will be carried on, then we might be able to look forward to a hopeful renaissance of the craft.

Mr. Ellis's book should prove a very helpful factor in this direction, because it is the work of a man who "knows his job."

C. H. B. QUENNELL.

Modern Practical Joinery. By George Ellis. In three volumes, price 15/-, 18/-, and 12/6 net respectively. B. T. Batsford, Ltd., 94 High Holborn, London.

Practical Geometry for Builders and Architects

Of books on geometry scores have been written and scores have found their way to the scrap-heap. Very few indeed, however, have been compiled for the particular benefit of the builder and architect. For his attempt to meet the needs of this group the author of this volume deserves praise. The book runs into some four hundred pages, including the index, which, by the way, is not very complete.

The preface states that "the book is not intended as a primer or elementary work for beginners," but by far the greater part of it appears to be nothing more than elementary, and it will certainly be of little value to any but those beginning their technical training. No attempt is made to deal with the more difficult problems on oblique planes which could be readily applied to stereotomy, carpentry, and joinery. The problems on interpenetration of solids, cast shadows, and contours are of the simplest, and are far below what is required for the present-day standard of technical training of architects and builders.

The first half of the book (Chapters I to XI), dealing chiefly with plane geometry, contains much useful matter, but errors are apparent. For example, there is a three-centred arch in woodwork, and a false elliptical arch in stone, also drawn from three centres (called in the letter-press a four-centred arch), in which the two centres for describing the arcs of the compound curve do not lie (as they should) on a straight line, which is a common normal to the two arcs. Further, this latter example as illustrated is really a segmental arch, all the centres being well below the springing level.

Again, referring to arches, the arrangement of the square-bonding shown is not in accordance with good practice, but is what is commonly taught in many books.

The second half of the book (Chapters XII to XXII) deals chiefly with solid geometry, interpenetrations, pictorial projection, and graphic statics, the latter being good but quite elementary. All the examples shown in the part relating to persepctive are of the simplest possible, none of the objects being placed in difficult positions. The use of the *picture plane* throughout as the *horizontal line* will be found very inconvenient when drawing in perspective any object which is over five feet in height, as the perspective view will be mixed up in the plan. It is misleading to state that the magnitude of the visual angle in the cone of rays depends upon the size of the object and the position selected for the station point.

The section dealing with roof surfaces and bevels is useful, and could have been extended with advantage to include more advanced problems. A very short chapter is given to interpenetrations of solids, and, unfortunately, a serious error is shown in the interpenetration of the cone with a semi-cylinder, while in the following illustration an error is shown at the intersection of a sphere with a cone.

One of the best chapters in the book is that dealing with sections of solids, and the book as a whole would be much improved by the inclusion of additional examples of actual building details. The descriptive matter throughout is laboured and drawn out until it becomes confusing and tiresome, several instances occurring in which the same geometrical construction is described two and three times to different problems of similar nature. The collection of exercises at the end of the book will be of service to students who are preparing for the various examinations.

J. STIRLING BOYD.

Practical Geometry for Builders and Architects. By J. E. Poynter (The Directly-Useful Technical Series, founded by the late Wilfrid J. Lineham, D.Sc., M.Inst. C.E.). Price 15/- net. Chapman and Hall, 11 Henrietta Street, Covent Garden, W.C. 2.

A Woodwork Glossary

In his preface to "Timber Technicalities," Mr. Edwin Haynes, its "editor and compiler," owns that the title "does not fully convey the scope of the contents." Neither does the description of it prefixed to this notice. To call the book a glossary is to do it an injustice—it is so much more ample and so much less arid than the type of book to which the term "glossary" is usually applied, and it includes so many subjects that, strictly speaking, can hardly be regarded either as glossarial or as "timber technicalities." In his very laudable but almost anxious desire to be comprehensive, the editor has included many entries—like "Hanseatic League," "Presenting a Bill," and "Stump Orator," for instance—that could have been spared, but which, having read them, one would not willingly see omitted. One rather suspects that the compiler, who is obviously in love with his subject, and was determined that his book should not lack comprehensiveness, was not always sufficiently rigid in excluding entries of doubtful validity. It must be admitted that some of his irrelevancies make very interesting if rather superfluous reading. This for instance: "Chimney.—A French term which shows the source from which we obtained those useful constructional features. The term embraces the 'fireplace,' and yields as its accessories 'chimney-piece,' 'chimney-shaft,' 'chimney-pot,' etc. They were not known in England before the twelfth century, and then only sparingly in castle-building." Is this a "timber technicality"? "How, marry?—tropically"; for be it known, moreover, that "Instances survived into the last century of rural chimneys wrought in wood or clay passages for smoke."

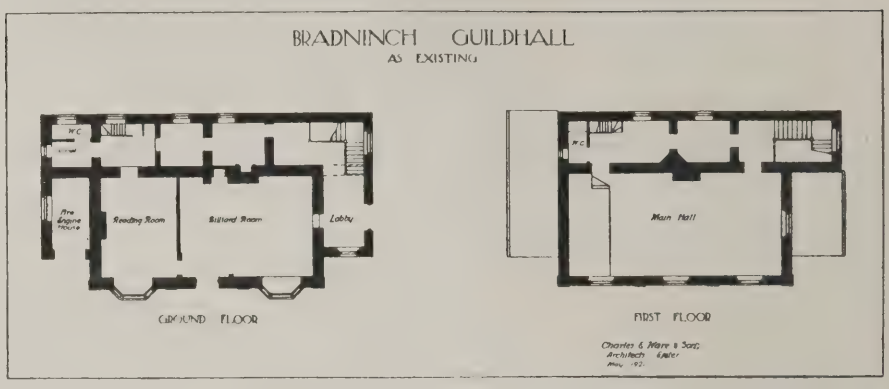
Cross-references might with advantage be more freely introduced. For example, in testing the list for inclusiveness, we tried for "Preservatives" and drew a blank. Meeting with a similar rebuff under each of the trade names of several well-known wood-preservatives, we at length looked under "Creosoting." Land at Last!—"See 'Timber, Preservation of.'" But cross-references would save time and disappointment, and their absence does an injustice to the compiler's passion for comprehensiveness. Users of reference books are apt to be more impatient than persevering, and if they do not immediately find what they want are apt to curtail the search and accuse the book of incompleteness. It is so much easier to do that than to look again.

On the whole this little book is quite excellent. In more than the technical sense, it is scholarly. Take this extract to witness: "Joiner: The man who joins substances together—in a popular sense, 'wood,' or 'timber.' His old name was 'House-wright' or 'Tree-wright'; his fellow, the cabinet-maker, was the 'Chest-wright' or 'Ark-wright.' 'Joiner' is glossed by 'carpenter,' an imported term from our Latin neighbours. In composition, as in 'Joiner's bench,' 'Joiner's stool,' 'Joiner's chest,' 'Joiner's tools,' 'hammer,' 'mallet,' etc., it has a wide field as a prefix." This is by no means an isolated instance of the compiler's erudition, which is "extensive and peculiar." Under "Timber Merchant" we are told that, until a century ago, he who would now be designated a foreign timber merchant was known as a "raff merchant." Again, under "Bühl Work" we get a definite historical reference: "A style of cabinet decoration common in France in the seventeenth century, so called from André Charles Boale, work being embellished with metal marquetry. Also written as Baule or Baulle." This is quite interesting, and therefore one could not have the heart to wish it away. If, like many other items that the compiler has seen fit to include, it travels a little beyond the title of the book, that fact is wholly insubstantial. Strict conformity to a title that palpably sacrifices so much to alliteration would have made the book much less valuable and far less interesting than it is.

But should a work of reference be made interesting? There can, we think, be but one answer to this question—a twofold answer, however. If the author (and Mr. Haynes is certainly much more than —let us say—a dry-as-sawdust compiler) is fully conversant with his subject, and knows how to write, he cannot fail to be interesting; and when a book deserves that character, the pleasure of referring to it is enhanced a hundredfold. Dust will not accumulate on it as on a book that is never consulted if one can avoid it. "Timber Technicalities" will often be taken down from the shelf as much for the sake of the entertainment as for the information it yields. It is therefore a book that can be heartily recommended to architects, who always love to combine *dolce* with *utile*, for that is of the essence of their alluring profession.

Timber Technicalities: Being Definitions of Terms used in the Home and Foreign Timber, Mahogany, and Hardwood Industries, the Sawmill and Woodworking Trades, as well as those employed in connection with Architecture and Building Construction. Compiled and edited by Edwin Haynes, Editor of "The Timber Trades Journal." London and New York, William Rider and Son, Ltd. Price 6s. net.

Bradninch Guildhall



Bradninch was formerly a borough of some importance, with its mayor and corporation, and sending its two members to Westminster; and the existing guildhall is now virtually all that remains as evidence of its former greatness. Practically the whole of the village was destroyed by fire about a century ago, and the present building was erected on the site of the old guildhall and prison. The structure is of local stone, stuccoed, and is of rather characterless classic style. It is now used as a men's club and village institute, and the alterations, designed by Messrs. Charles Ware and Son, will increase the present accommodation, and enable it to be used as a ladies' club also, as well as providing public baths and a board-room for the Town Trust.

The site was a somewhat confined one, and the existing building was so planned that its adaptation to its new requirements was a matter of some difficulty, as it was considered advisable to keep the men's and ladies' clubs separate, and yet so to arrange matters that one staff should serve both.

The men's portion of the building will consist of entrance hall, reading-room, facing on the village square, billiard room with two tables, lavatory accommodation, and a central buffet—top lighted; the servery of this buffet has a hatch to the ladies' reading-room, also on the front of the building but with a separate entrance hall, which also leads to the ladies' lavatories. The baths are so placed that the locking of one door cuts them entirely off from the men's portion of the building on days when they are allocated to the ladies, and the unlocking of this door and the locking of that leading to the ladies' lavatory places them at the disposal of the men on other days. A heating chamber will be placed in the basement to supply hot water both for the baths and for the heating of the whole building.

On the first floor the concert hall has been enlarged, and a convenient anteroom communicating with the stage has been provided; a board-room and anteroom will be built over the new billiard room, and lavatory accommodation placed where it may be used either by the artistes at a concert or by the Town Trust members at a board meeting as the case may be. The existing inconvenient back stairs will be replaced by a serviceable staircase leading to the men's club portion.

The memorial window in the front is carried out in Portland stone, and is designed to give some character to the front façade without clashing with the existing building. Above this window is a stone with the inscription: "This stone was laid by H.R.H. Edward, Prince of Wales, Duke of Cornwall, Lord of the Honour and Manor of Bradninch, May 17th, 1921," flanked on one side by the Prince's crest, and on the other by his arms as Duke of Cornwall, the crest of which Bradninch has the right to use. The window is crowned by a balcony from which speeches may be made on high-days and holidays.

The King and the Liverpool Conference

During the conference of the R.I.B.A., held in conjunction with the Liverpool Architectural Society at Liverpool, the following telegram was sent to His Majesty the King:—

"To His Majesty the King,
"Buckingham Palace.

"Royal Institute of British Architects assembled in conference at Liverpool submit their humble duty to His Majesty their Patron with expressions of loyal admiration.

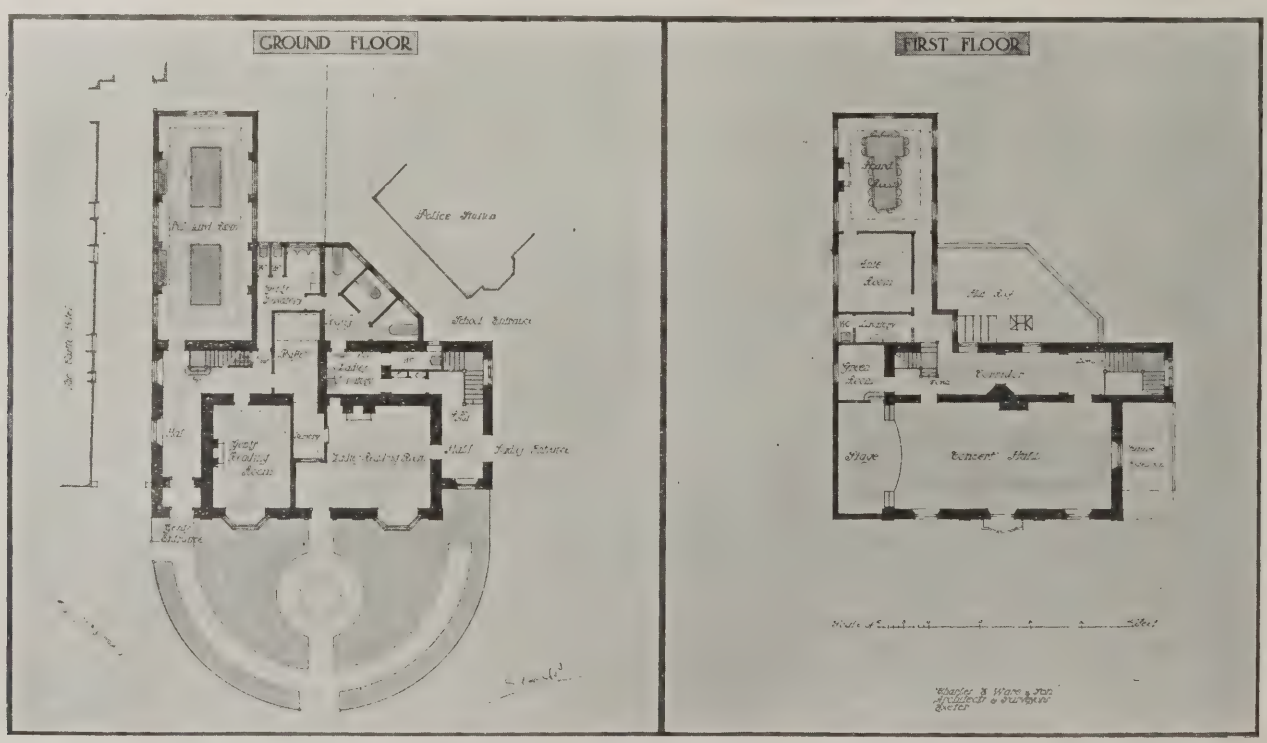
"J. W. SIMPSON, President.
"Adelphi Hotel, Liverpool."

The following gracious reply was received:—

"To The President, Royal Institute of British Architects, Adelphi Hotel, Liverpool.

"The King has received with much pleasure the loyal message which you have sent to His Majesty from the Royal Institute of British Architects assembled in conference in Liverpool, and I am to assure you how much His Majesty appreciates the kind sentiments to which your telegram gives expression.

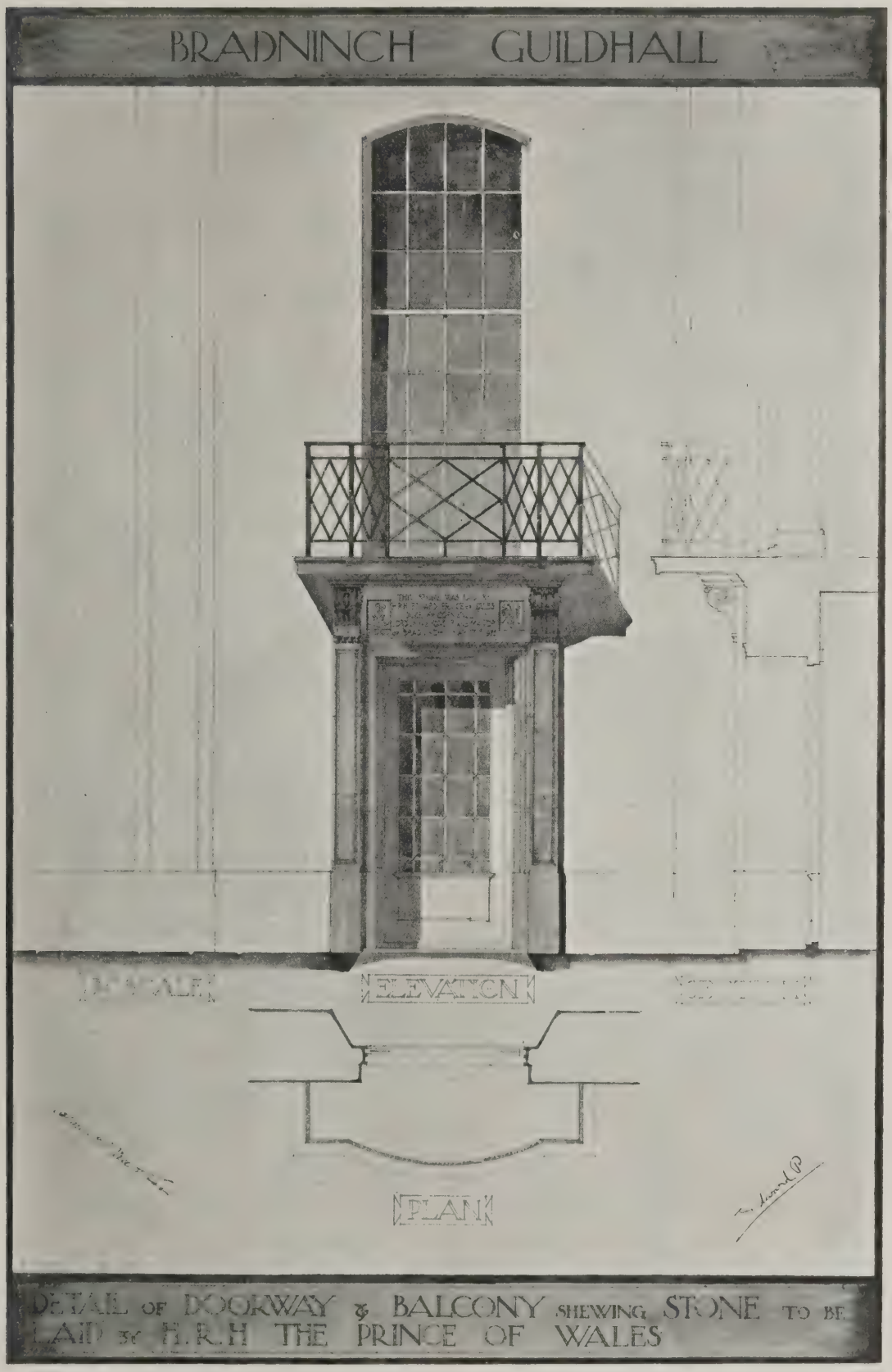
"PRIVATE SECRETARY."



PLANS SHOWING ALTERATIONS TO BRADNINCH GUILDHALL, DEVON.
CHARLES E. WARE & SON, ARCHITECTS.

Current Architecture. 94.—New Doorway and Balcony to Bradninch Guildhall, Devon

Charles E. Ware and Son, Architects

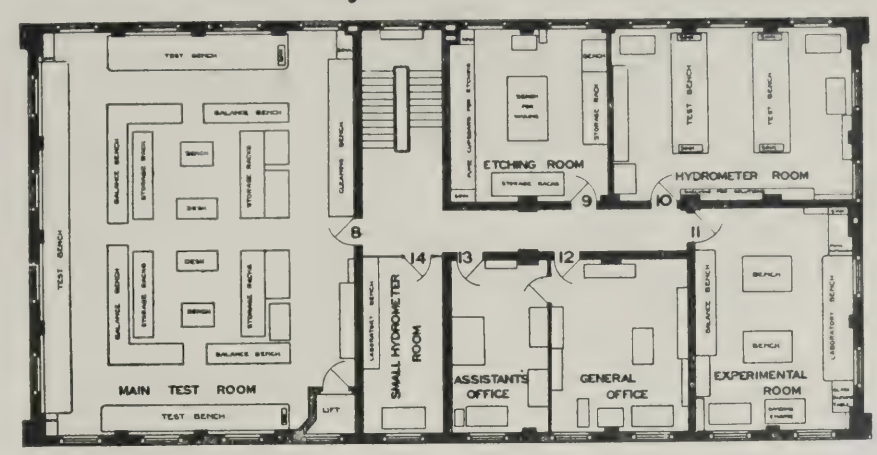


A description of Bradninch Guildhall and of the alterations which are now being made to it is given on the opposite page. The lintel stone was laid by the Prince of Wales during his recent tour of the Duchy Estate. His Royal Highness's signature may be seen in the lower right-hand corner of the illustration

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New Buildings for the National Physical Laboratory

THE accompanying illustrations show the new glass testing building and the new and enlarged metrology workshops of the National Physical Laboratory. According to the last annual report of the Laboratory, from which the illustrations are reproduced, the bulk of the test work of the section dealing with glass volumetric apparatus and hydrometers is now carried out in a large room specially equipped for the work on the first floor of the glass-testing building. The general arrangement of this room and of the remaining rooms on the first floor of the building is shown in the illustration.



PLAN OF FIRST FLOOR OF GLASS TESTING BUILDING.

To the west of the door in the north wall of the main test room is a cleaning bench with a canopy over it. There is a flue in one corner of the cupboard, and ducts opening into the canopy carry away any fumes arising from the cleaning operations. All apparatus is thoroughly cleaned before test. The test benches run the whole length of the three remaining sides of the room; and parallel to the test benches and separated from them by an aisle are the balance benches, which thus form three sides of a rectangle as shown in the plan. The balance benches are supported on brickwork piers bonded into a low brick wall built at the back of the benches and running throughout their entire length.

Behind the balance benches, which face the south wall, and also completing the rectangle of which the balance benches form three sides, are large storage racks for the accommodation of apparatus received for test. These were designed in conjunction with the trays used for handling the apparatus, and, without occupying an excessive floor space, provide accommodation for a very large number of vessels. A lift in the south-west of the room communicates directly with the packing room on the ground floor. Apparatus when unpacked is sorted into convenient trays which fit into a trolley designed for the purpose, which is brought straight up into the test room by means of the lift, and the trays are then transferred to one of the storage racks. The handling of apparatus is thus reduced to a minimum, which is a distinct advantage when dealing with quantities of fragile apparatus.

Room No. 11 is set aside for special investigations and test work of a non-routine nature. It is equipped with a small fume cupboard, several laboratory benches, a glass-blowing table, balances, cathetometer, and a dividing engine.

The work of testing glass hydrometers is carried on in room No. 10 on the first floor of the glass testing building. A second room, No. 14 in the new building, is used for work in connection with the laboratory standard hydrometers. With the exception of the testing of metal

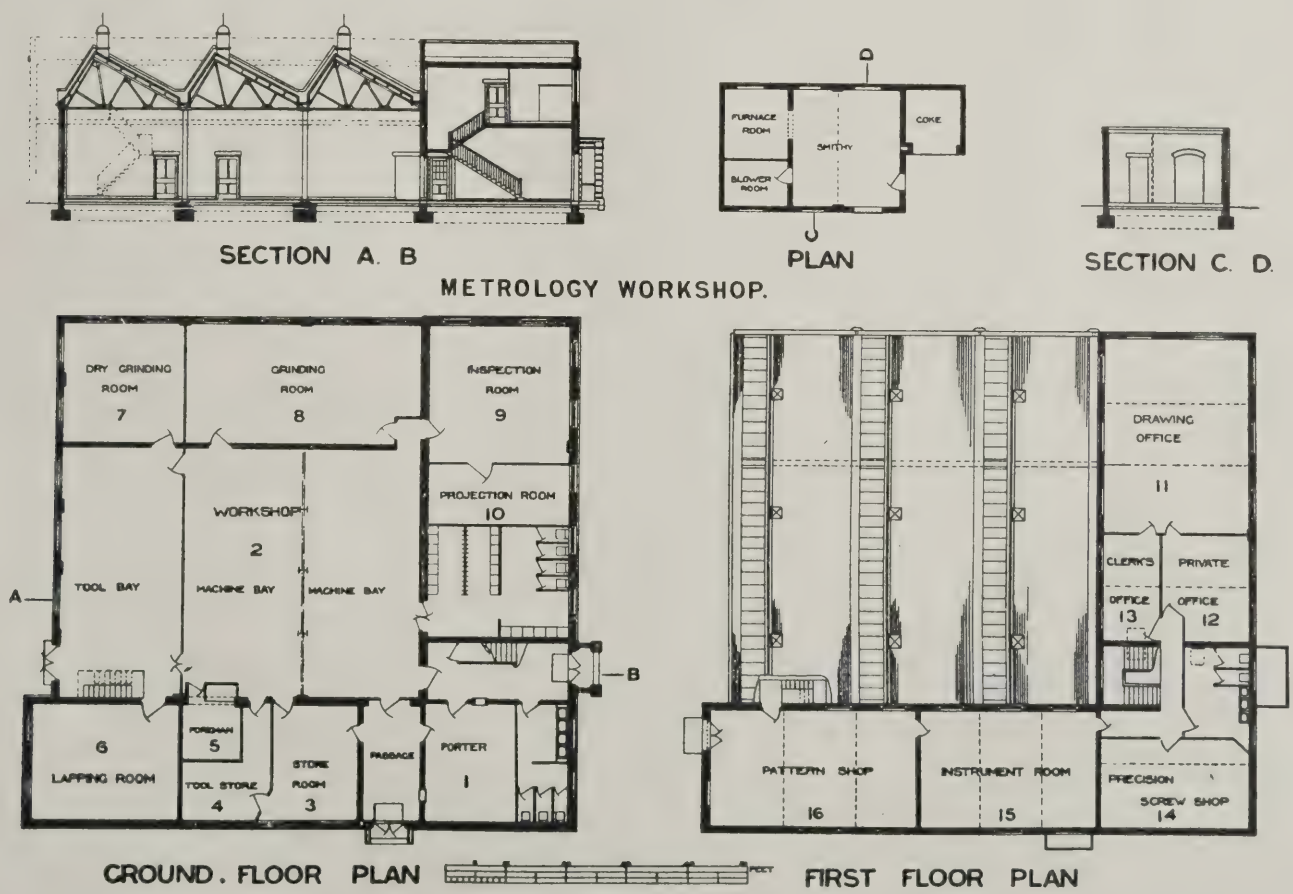


FIG. 18

PLANS AND SECTIONS OF THE METROLOGY WORKSHOP, NATIONAL PHYSICAL LABORATORY, TEDDINGTON

Sikes hydrometers, which is still carried out in Bushy House, the whole of the work of the section, including both hydrometers and volumetric glassware, is now centred in the new building. The work can be dealt with much more conveniently and efficiently than when it was dispersed throughout widely separated parts of the laboratory.

The metrology workshop is intended to replace the comparatively small workshop which forms part of the metrology building. The general lay-out of the shop is shown in the plans. It will be seen that the arrangement is such as to enable it to deal thoroughly with the making of apparatus and for the production of accurate gauges such as standard gauges and check gauges. A separate small building is provided for the hardening plant. The workshop is furnished with its own inspection department, and is equipped with various measuring machines, projection apparatus, etc.

The erection of other buildings for the National Physical Laboratory is now well advanced. These comprise a substantial addition to the buildings of the engineering department, which includes much-needed office accommodation, a small building for concrete testing, an extension of the tank building to give increased space for offices and other purposes, some alterations to the electrotechnics building, and a canteen for the laboratory staff. An underground range for experiments on the flight of projectiles is also to be provided. These additions are rendered necessary by the continued growth of the activities of the laboratory and the impossibility of displacing standard apparatus to make room for new developments and extensions of the work. The provision made by the Treasury did not allow, however, for the proposed addition of a third story to the metallurgy building, and this had to be postponed for further consideration at an early date. The need for additional accommodation for metallurgical work has been for some time severely felt, and it is hoped that sanction for this extension may be given in the coming year.

Of the scheme for further extensions, the most urgent need is for a building to accommodate various divisions comprised in the physics department, including heat, thermometry, radiology, and sound. Provisional plans for this building have been prepared, and the matter is receiving careful consideration with a view to the necessary action being taken as soon as circumstances permit. A building to provide office and workshop accommodation for the staff of H.M. Office of Works employed on the maintenance of the buildings and engineering services is now in course of erection.

The report is full of interesting information concerning the laboratory generally and the important researches carried out by the various departments—physics, electricity, metrology, engineering, aerodynamics, and metallurgy. Copies may be purchased through any bookseller or directly from H.M. Stationery Office at the following addresses: Imperial House, Kingsway, London, W.C.2, and 28 Abingdon Street, London, S.W.1; 37 Peter Street, Manchester; 1 St. Andrew's Crescent, Cardiff; 23 Forth Street, Edinburgh; or from E. Ponsonby, Ltd., 116 Grafton Street, Dublin. *Price Five Shillings Net.*

Details of Science and Technical Buildings

In continuation of the series of drawings of science and technical buildings, specially prepared for this JOURNAL by Messrs. A. W. S. and Kenneth M. B. Cross, we show this week details of a blackboard for a lecture theatre. It is desirable that the blackboard should be placed in such a position that, whilst it is in full view of the whole class, it is also within easy reach of the lecturer. With this object in view, boards arranged on the pulley system which, after they have been used for working out a problem, may be elevated to a point of vantage, have been found to be the most convenient. The height to which it is desirable to raise the blackboard varies, of course, with the size of the lecture theatre, and with the disposition of the seating. In the accompanying example (*see double-page plate*), on which double sliding boards are shown, the ceiling level is about 13 ft. 10 in. from the floor, and the four principal pulleys are arranged as near to the ceiling as possible. Flexible wire ropes carry the boards, to which they are attached by means of adjustable wedges, as illustrated. The bottom of the blackboard may be about 18 in. from the floor level. A handrail is attached to the vertical edge of the lower board by means of iron straps, and it should be so arranged that the top end of the rail is sufficiently slack to allow for the shrinkage of the board which, if it is of wood, is almost inevitable. In constructing the board, which should have a dull black finish to avoid the reflection of light and to provide a good surface for the chalk, the bottom plank only should be screwed to the battens, and the others should be buttoned as shown. Best ground plate-glass fitted in a wood frame may also be used if the underside of the glass is treated with a mixture of size and lamp-black.

Institute of Scottish Architects' Annual Convention

The annual convention of the Institute of Scottish Architects has been held at Dundee under the chairmanship of Mr. Alexander N. Paterson, the President.

Lord Provost Spence, in extending a welcome to the delegates, said that public men looked to architects to see that no monstrosities were erected, and at the present time he should be very pleased if they could devise some plan whereby the cost of house-building could be considerably reduced.

The President, in reply, said that no one would more welcome a reduction in building costs than architects, but he was afraid that the situation was likely to remain unchanged until there was a change of policy on the part of the trade unions and a change in the consciences of the working men. The work of architects was killed by the present impossible prices.

Discussion arose during the general meeting subsequently held as to the proposed unification and registration of the profession, which has been receiving consideration by a representative Committee of architects from all parts of the United Kingdom, under the auspices of the R.I.B.A. Fear was expressed that the scheme might interfere with the freedom of the Scottish Institute.

The President replied that the Council were willing to co-operate on condition that the autonomy of the Scottish Institute would in no way be interfered with. The President also expressed satisfaction that the Institute had been asked to co-operate with the Royal Scottish Academy in the architectural section of the Society's exhibition.

Mr. Paterson was unanimously re-elected President, and his address which followed was largely on the work of Sir Rowand Anderson. He remarked that the Institute was Sir Rowand's memorial, and it remained for them and their successors to keep it worthy of him.

Honorary Fellows were elected as follows: Rev. Professor Cooper, Glasgow; Mr. A. W. Cox of Glendoick, Glencarse; Sir J. Alfred Ewing, Edinburgh; Sir John R. Findlay, Edinburgh; Dr. D. Hay Fleming, Edinburgh; Principal J. Colquhoun Irvine, St. Andrews University; Mr. R. W. R. Mackenzie of Earlshall, Leuchars; the Right Hon. the Earl of Moray, Kinfauns Castle; the Very Rev. Sir George Adam Smith, Principal of the University of Aberdeen; and Sir J. Lawton Wingate, Edinburgh.

Inverness was selected as the venue of the next Convention.

The following bequests to the Institute under Sir Rowand Anderson's will were intimated: House, 15 Rutland Square, Edinburgh; library and fittings at Allermuir House, Colinton; some of the furniture and silver plate at Allermuir House, Colinton; bronze bust of testator by Dr. Pittendrigh MacGillivray; and half the residue of estate (conditionally).

During the luncheon Sir Wm. Henderson, in submitting the toast of "The Institute," suggested that young men entering the profession should be encouraged to go in for a more thorough training. The training of the young men was a vital question when the comfort and pleasantness of future homes were considered.

In reply, the President said that the question of education had already been taken up. Since the formation of the Institute they could speak with authority for the architects in the country as they never before could do.

After luncheon the visitors were conducted over the new City Hall, and afterwards made a tour of the city, visiting en route various housing schemes.

Liverpool Architectural Society

Mr. T. T. Rees presided over the seventy-fourth annual meeting of the Liverpool Architectural Society. The report showed that the present membership consists of fifty-two fellows and fifty-five associates, besides five hon. fellows, eight hon. associates, and twenty-eight students. Elections of officers were announced as follows: president, Major Gilbert Fraser; vice-presidents, Professor Partick Abercrombie and Mr. W. Glen Dobie; and hon. secretaries (re-elected), Messrs. R. Holt and E. Gee. Mr. E. Percy Hinde was made a recipient of a handsome silver tea and coffee service for himself, and a silver jewel-case for his wife, in recognition of valuable services rendered by him to the society during upwards of a quarter of a century. Mr. Hinde is the representative of the R.I.B.A. on the Court of Governors of Liverpool University.

The R.I.B.A. Conference at Liverpool

AT the R.I.B.A. Conference held in Liverpool on Friday and Saturday week last a number of interesting papers were delivered and discussed. One of these (that by Mr. Lionel B. Budden on "Architectural Education") was published in our last issue, while this week, on an earlier page, we print Professor C. H. Reilly's paper on "Propaganda and Publicity," followed by some impressions of the conference by a special contributor. Précis of some of the other papers read at the conference are given hereunder.

Mr. Simpson on "Unification"

In his address on "Unification and Registration" the President, Mr. John W. Simpson, added little to what is already common knowledge about these momentous issues. He outlined very clearly the whole course of the proceedings leading up to the adoption of "Scheme A," which is framed to bring into membership of the R.I.B.A. all the architects of the United Kingdom. He pointed out that the effect of the resolutions adopted at the meeting of May 12 was that the Society of Architects should be amalgamated with the R.I.B.A to form one great organization of architects, subject only to satisfactory arrangements being made with regard to classification of members. He referred in passing to the recent meeting of Associates, to whose loyalty of spirit he made reference in sympathetic terms. Continuing, he said it was felt to be undesirable to interfere to any serious extent with the Associate class, mentioning that while a certain number of the Society of Architects would join as Fellows of the Institute, others would be incorporated in a new class of "Members R.I.B.A.," in which it was proposed to include the Licentiates and, under certain conditions, members of allied societies. It was proposed to institute a special examination for members desiring admission to the Associate class, from which, of course, they could proceed to the Fellowship in the ordinary way. The "Members" class would close in course of time, and there would remain two permanent classes of membership of the R.I.B.A.—Fellows and Associates.

An interesting discussion followed, which was taken part in by Mr. Hastwell Grayson, Mr. Gilbert Fraser, Mr. Herbert T. Buckland, Mr. W. T. Milburn, Professor S. D. Adshead, Mr. Stanley Hamp, Mr. Arthur Keen, and Mr. H. C. Corlette. Replying to the discussion, the President commented on the unanimity of the meeting, which he said did great credit to the profession.

Mr. Maurice E. Webb on "Official Architecture"

Mr. Maurice E. Webb, in reading a paper on Official Architecture, said that the department of the Office of Works was founded in 1852, and as time went on it was entrusted with the design and erection of public buildings of a special character such as post-offices. Some such department, of course, was essential, but he wanted to emphasize the increase which had taken place in the staff of that department. The staff had been almost trebled since the war, and the salary list had risen to nearly half a million pounds. This showed the tendency to officialize architecture. The enormous increase in the staff had led to practically the whole of the housing schemes being carried out officially.

"Housing directors, commissioners, and assistant commissioners," he continued, "sprang up like mushrooms. When the need for more houses is over, what is to become of them?" He thought that work would be found for them at the taxpayers' expense.

Did they believe that the finest architecture was likely to be produced by private enterprise, or by the State? There was no doubt, he thought, that great buildings were more likely to be produced by architects who were working under the impulsion of private enterprise than by an official in a secure post. Would St. George's Hall or the Liverpool Cathedral—to take two examples in that city—ever have been produced so magnificently if the work had not, by open competition, stirred two ambitious young men—Elmes and Gilbert Scott—to add their names to the roll of great architects?

Referring to the question of the architect's name being placed on the building he had designed, Mr. Webb said he believed the time would come when the Royal Institute would have to insist on all members working for a big firm or Government departments or municipalities doing so only on condition that their name was attached.

Concluding, Mr. Webb said the whole question of official architecture was being considered by a committee of the Royal Institute, which had been sitting for six months.

Mr. W. E. Willink (Liverpool), opening the discussion, said that the first question in the mind of the authorities was that of money—was it cheaper to have the work done by an official architect or by another in private practice? All Government offices, however, were very much larger than they ought to be, and very much more expensive. The question of whether the official architect should be employed in collaboration with the private architect should perhaps be considered. It seemed that the whole solution of the question might lie in collaboration. Friendly co-operation might be the best way out of the difficulty. He thought the conference should pass a resolution on this important subject in order that the Government should know the views of their profession.

Colonel Beckwith, a member of Liverpool City Council, said he thought a great deal of the housing work might be put out to the benefit of everybody. He had very strongly advocated the outside architect being employed on the housing scheme in Liverpool. If they had had the job, he thought, Liverpool would now have double the number of houses.

The opinion that housing schemes could be more speedily, artistically, and economically carried out by architects in private practice than by public bodies was expressed by another speaker.

Professor Adshead said that the tendency to-day was for individual effort in every direction. Architects must gain the sympathy of the public on the matter of official architecture. If they could get the public behind them they could do something to get those buildings back, and the Office of Works would be put back to the position it occupied fifty years ago. He had been trying to think what sort of buildings could be allowed to official architects. "Let them be confined," he said, "to buildings which are underground."

The following resolution, proposed by Mr. Willink, was then put to the meeting, and carried unanimously:—

"That this conference views with deep and growing apprehension the method of the Office of Works and other public bodies with regard to the designing of buildings to be erected out of public funds."

It was stated that the resolution would be forwarded to the proper quarters.

Architectural Education

During the discussion on the paper on Architectural Education by Mr. Lionel B. Budden (published in our last issue) Professor C. H. Reilly said he thought that universities were the real home of architecture. He hoped they would soon have a Faculty of Architecture in Liverpool, when they would be able to lay down their own regulations and not be interfered with by anybody else. The question of atmosphere was an important one. It was a good thing for the young architect to be trained among young doctors, young engineers, etc. If the architects were in a separate school he fancied they would lose a great deal—they would lose possible friendships, and they might also lose possible clients. Another point was that students went out into the world with a degree from the university which the world could understand. He felt sure there was something in academic training, and he should be sorry if architects stood out on any ground from being among the general mass of university students.

Mr. Newton said that the Liverpool School was particularly fortunate in the happy combination it possessed in the coolness of Mr. Budden and the warmth of Professor Reilly. All architects would acknowledge the debt they owed to the Liverpool School of Architecture, which had always been in the forefront. There was, however, always one great weakness in school teaching. Architects were able to see in the "flesh" what they had been thinking about on paper, but in the schools they were like the fathers in Plato's Republic, who produced children, but never saw them in the flesh. An architect's education was a matter of thirty, forty, or fifty years, and they were always learning.

Mr. Keen, on behalf of the Royal Institute, expressed appreciation of the services rendered in connection with the conference by the Liverpool Architectural Society. He paid a tribute to the good offices of Mr. T. T. Rees (president of the Liverpool Society), Mr. A. W. Hennings (Manchester), and Mr. Holt.

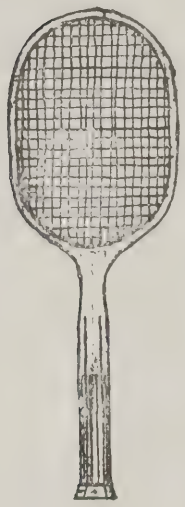
"Period" Designs for Tennis Rackets

The amusing designs shown hereunder and the accompanying descriptive notes are reproduced from our sprightly contemporary the "Architectural Association Journal."

The tennis racket of commerce (it is stated) reflects the soulless degradation of the industrial epoch. The newly formed Guild of Racket Craftsmen commissions eminent architects to prepare drawings for new types. Some delightful designs are evolved, and their authors achieve popularity. But even yet there are murmurs of discontent.

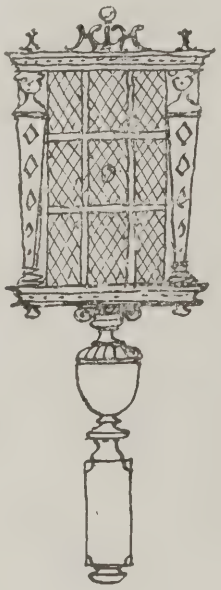
Philistines and vorticists at a great mass meeting call upon Professor Lethargy and Mr. Robert Adamant for a modern racket design. They travel for seven years, investigating everything and emitting bi-weekly reports. Returning to this country, they co-opt Mr. Jam Sandwidge and Mlle L'aiglon, famous respectively for the theory and for the practice of dynamics.

Their final triumph is here shown, and of this design it has been said, and well said, that in it the logical expression of function has been uttered in terms of the purest æsthetic.



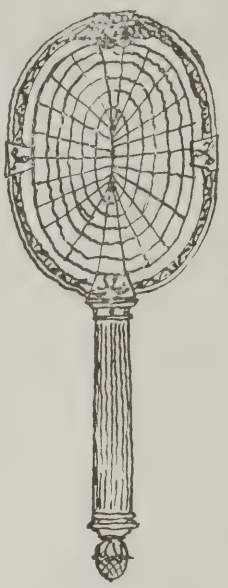
THE "COMMONPLACE"

"Reflects the soulless degradation of the industrial epoch."
A . . . .ro in Architects' Journal.



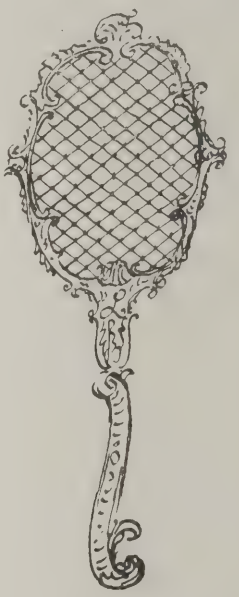
THE "JACOBEAN"

"Fit for Heroes to play with."
Mr. L . . . d G . . . .e.



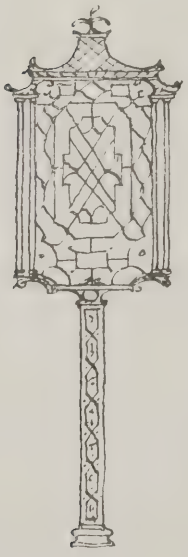
THE "WREN"

" . . . .can trace the master hand of Sir E."
Country Life



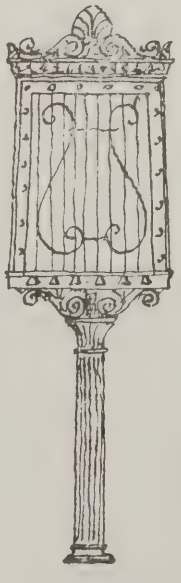
THE "LOUIS QUINZE"

"Charmingly Decorative."
Our Homes and Gardens.



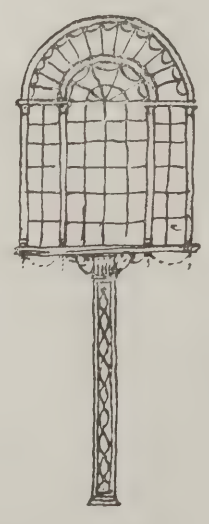
THE "CHINESE CHIPPENDALE"

"An exquisite fantasy."
The Studio.



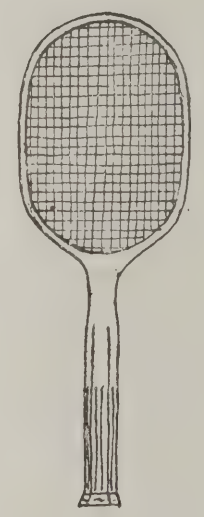
THE "NEO-GREC"

" . . . .scholarly and refined work."
Architectural Review.



THE "ADAMS"

" . . . . on sound traditional lines."
The Builder



THE "NOT NEO-ANYTHING"

"The final triumph."
A.A. Journal.

J.M.E.

"NEO": HIS RISE AND FALL

(*From the "Architectural Association Journal"*)

Latest List of New Inventions

Latest Patent Applications.

16191.—Boyd, W.—System of concrete building construction. June 13.

16461.—Element, S.—Building-blocks, slabs, etc. June 15.

16752.—Feuillette, E.—Construction of buildings. June 17.

16722.—Radbourne, B. E.—Concrete tiles. June 17.

16410.—Whiffen, C. F.—Building construction of concrete, plaster, &c. June 14.

Specifications Published.

164465.—Hurden, E., Hurden A. P., and Beeson, S. E.—Walls or partitions for buildings and like structures.

164542.—Skipsey, A.—Manufacture of through pattern tiles, floor coverings, and the like.

Abstract Published.

162580.—Wall-ties. — Beswarick, J.C., 2 Church Road, Hove, Sussex. —A wall-tie of skeleton form, which is made from a single piece of wire, or stamped out of sheet metal, comprises a connecting-portion which may be grooved for drainage, having at each end three wing-pieces, two of which oppose each other and rest against the insides of the wall, and are at right-angles to the remaining piece which engages between the bricks.

The above particulars are specially prepared by Messrs. Rayner & Co., of 5 Chancery Lane, London, from whom readers of this Journal may obtain all information free relating to patents, trade-marks, and designs. Messrs. Rayner & Co. will obtain printed copies of the published specifications and forward on post free for the sum of 1/- each.

R.I.B.A. Council Meeting

The following business was transacted at the last meeting of the Council of the R.I.B.A. :—

Allied Societies.—The Council admitted to alliance with the Royal Institute, under By-law 78, the newly formed Berks, Bucks, and Oxon Architectural Association, and approved of certain amendments to the Rules of the Northern Architectural Association.

The Archibald Dawnay Bequest.—The Council approved a scheme for the annual award of two "Archibald Dawnay Scholarships" of £50 a year each for two years and one of £25 a year for two years (a total yearly expenditure of £250) for candidates who have been through the three years' course at a "recognized school." The scholarships will be awarded for excellence in construction, and with the idea that the money should be used towards assisting the holders in the further study of construction. Candidates will be nominated by the schools, and the selection will be made by the Board of Architectural Education, if possible, without demanding the attendance of provincial candidates in London. The selection will be based largely on the actual school work of the candidates. The second year's enjoyment of the scholarships will be subject to the approval or veto of the Board.

Technical Lectures at the R.I.B.A.—The Council authorized the arrangement by the Literature Standing Committee of a series of technical lectures to be held during the month of November and the first fortnight of December 1921, in the R.I.B.A. Galleries.

The University of Sheffield.—Mr. J. A. Gotch was re-elected to represent the R.I.B.A. on the Court of Governors of the University of Sheffield.

The Professional Classes Aid Council.—Mr. George Hubbard was appointed to represent the R.I.B.A. on this Council.

Duration of the Session.—Under By-law 57 the duration of the Session was extended to July 31, 1921.

The Royal Commission on Fire Prevention.—The Building Act Committee was authorized to co-opt additional members representing London and the provinces, and to arrange for the furnishing of evidence to the Royal Commission on Fire Prevention.

The Fellowship.—Under the provisions of By-law 12 Mr. Ralph Knott was unanimously elected a Fellow of the Royal Institute.

Wooden Houses and the Government Subsidy.—A protest was sent to the Ministry of Health against the subsidizing of houses built of unseasoned wood.

Publications Received

The Elements of Illuminating Engineering. By A. B. Trotter. Price 2s. 6d. net. Sir Isaac Pitman and Sons, Ltd., Parker Street, Kingsway, W.C. 2.

Concrete: Its Artistic Possibilities. No. 14 of a series of pamphlets issued post free by the Concrete Utilities Bureau, of 35 Great St. Helen's, London, E.C. 3.

More About Unknown London. By Walter G. Bell, F.R.A.S. Price 6s. 6d. net. John Lane, The Bodley Head, Vigo Street, London, W.

Constructional Steelwork. A handbook containing a collection of Tables and data for the design of constructional steelwork, compiled by the Technical Staff of Archibald D. Dawnay and Sons, Ltd., London and Cardiff.

Architectural Assistants

Professor A. E. Richardson, F.R.I.B.A., is in a position to recommend students at the School of Architecture—the majority ex-Service men—who will have completed their courses on July 7. Architects and others requiring assistants are invited to communicate with Professor Richardson at University College, London.

Competitions Open

For particulars of competitions open—New Hospital Buildings, Cairo (October 3), North Wales Heroes' Memorial (July 23), Wolverhampton War Memorial (Aug. 13), Birmingham Hall of Memory (October), and New Park for Wandsworth (Sept. 5), see last week's issue.

Correspondence

Liverpool Conference

To the Editors of THE ARCHITECTS' JOURNAL.

SIRS,—I passed on to the R.I.B.A. an inquiry on behalf of some Liverpool members of the Society of Architects who wished to attend the Conference, and was informed that it was limited to members of the R.I.B.A. and its Allied Societies. It is announced in the Press that the invitation was extended also to members of the Architectural Association, and if it could have been stretched just a little further to include members of other non-allied architectural bodies, it would have been a graceful act and one consistent with the tentative proposals of the R.I.B.A. for unification.

C. MCARTHUR BUTLER,
Secretary of the Society of Architects.

Enquiries Answered

The Term "Architect."

R. H. writes: "Can you tell me when the term 'architect' was first used?"

—It is difficult to say, but the term appears very seldom either in literature or in documents previous to the seventeenth century. Shakespeare uses the word only once, and in contracts of Elizabeth's time it occurs seldom, if at all, although the documents refer to the provision of design as well as workmanship. Now and then the word appears in the title-pages of books published for the guidance of designers in the reigns of Elizabeth and James, but primarily they were addressed to artificers.

Stopping Holes in Oolite Stone.

A.B.S. writes: "I am much obliged for your reply (published in our last issue) to my inquiry. Unfortunately the use of Portland cement as suggested by your adviser is not satisfactory for several reasons, the chief of which is that even when mixed with burnt umber the colour is not a good match, and also the time taken for the mass to harden is much too long. Actually, shellac, although very unsuitable for many reasons, is superior to Portland cement. The fact that your adviser's answer does not help me does not in any way lessen the gratitude for the trouble you have taken, but I think it is only fair to mention the facts of the case as I have done above."

—The reply of our expert, W.S.B., is as follows: "The matching of the colour is a matter for the judgment of the user, as any desired depth of colour can be obtained within reason; and because your correspondent was unsuccessful does not demonstrate that the method is wrong, but merely that he did not use the correct proportion of colour to obtain the desired tint. As regards the setting of the mass, I would point out that cements vary considerably in time of setting, and a quick-setting cement should be used. I might add that to my personal knowledge the method advised has been successfully used on many occasions."

The Week's News

Church Bricks for Cinema.

The old St. Mary's Church, Portsea, unused for a long time, is to be demolished and the bricks used for building a cinema.

Housing at Lerwick.

Messrs. D. and J. R. McMillan, architects, Aberdeen, have the housing scheme at Lerwick in hand.

Southend Housing Subsidies.

Builders have drawn nearly a quarter of a million for house subsidies in Southend in eighteen months.

New Housing Site at Hoghton.

Chorley R.D.C. have appointed a subcommittee to visit Hoghton and select a new housing site.

Professor Newcome in London.

Professor Newcome, of Illinois University, is now in London studying the methods of teaching at University College School of Architecture.

Exhibition of Architectural Drawings.

An exhibition of architectural drawings is now being held at University College, London, and will remain open until July 10.

New Memorial Vestry in Staffordshire.

A new memorial vestry designed by Mr. J. H. Beckett, A.R.I.B.A., has been dedicated at Dresden (Staffs) Parish Church.

Sir Herbert H. Bartlett.

It is with deep regret that we announce the death of Sir Herbert H. Bartlett, Chairman of Messrs. Perry and Company (Bow), Ltd.

Folkestone War Memorial.

The War Memorial Committee has decided to give the order for the memorial, which is to be erected, at a cost of £3,000, on a fine site at the eastern end of the Leas.

New War Memorial for Leven.

A war memorial, designed by Sir Robert Lorimer, has been unveiled at Leven. It takes the form of a pillar surmounted by a Celtic Cross, and having emblematic shields on the sides.

New Music Pavilion for Hastings.

Competitive designs are to be obtained for the music pavilion it is proposed to erect on the site of the hospital at Verulam Place, when that institution is removed to the new site in Cambridge Road.

Devonshire House Gates.

Permission has been granted by the First Commissioner of Works to erect the Devonshire House gates at the Piccadilly end of the northern avenue of the Queen Victoria Memorial.

New Secretary of the Industrial Council.

The Industrial Council for the Building Industry have issued an announcement stating that all communications respecting the business of the Council should be addressed to the newly appointed Secretary, Mr. A. J. Lloyd, Dacre House, 5 Arundel Street, London, W.C. 2. Telephone: City 4220.

Garage, Banbury.

A new garage for the Banbury Co-Operative Society, Ltd., is to be erected from the designs of Mr. F. J. Cooke, M.S.A., of Prudential Chambers, Banbury. The contractors are the Banbury Co-Operative Society Works Department.

New Public Park for Nottingham.

The Woodthorpe Grange Estate, Sherwood, has been purchased by the Nottingham Corporation for £15,000. It is intended to use part of it as a public park, one-third of the cost being paid by Sir Jesse Boot, Bart.

Newcastle Housing Scheme.

Some 130 of the new houses completed by the Newcastle Housing Committee on the Walker Estate, have been officially opened. The Walker Estate scheme embraces 112 acres, and the lay-out provides for 1,250 houses.

George Washington Statue in London.

The replica of the Houdon statue of George Washington, presented to H.M. Government by Dr. Henry Louis Smith on behalf of the Governor of the Commonwealth of Virginia, has been unveiled in Trafalgar Square.

Architectural Studies at Cambridge.

The examination in Architectural Studies at Cambridge University has resulted as follows: Part I, Class 1, F. P. Chambers (Clare); Class 2, R. A. Penrose (Queens'). Part II, Class 1, O. E. Johnson (Caius); W. A. S. Lloyd (Christ's); Class 2, A. P. D. Penrose (King's).

The Late Mr. Joseph Owen.

The death is announced of Mr. Joseph Owen, who filled the position of county architect for Anglesey for seventeen years. The late Mr. Owen was the architect for most of the Anglesey housing schemes, and for the National Provincial Bank for North Wales.

Marlborough War Memorial.

About £8,000 will be expended this year in laying out the grounds and constructing a concrete raft as a foundation for Marlborough College War Memorial Hall. As designed by Mr. W. G. Newton, M.A., the hall is of the amphitheatre type of plan, with a paved forecourt and garden.

Improvements at Dover.

Street widening is to be carried out in connection with the improvement of the approach to the new Marine Station. This includes the construction of a new railway bridge, the tenders for which have been referred by the Corporation to the Pier Improvement Committee.

The R.I.B.A. and the Institute of Scottish Architects.

The President of the R.I.B.A., Mr. John W. Simpson, has received the following telegram from Mr. A. N. Paterson, A.R.S.A., F.R.I.B.A., in reply to his letter regretting inability to accept the invitation for the Annual Convention of the Institute of Scottish Architects held at Dundee on the 20th inst:—

"President, Council, and Members I.S.A. send fraternal and filial greeting and thanks, with regret at your inability to join their convention.

"PATERSON, President I.S.A."

The Art of the Theatre.

An exhibition has been arranged by the Department of Engraving, Illustration, and Design in Room 70 of the Victoria and Albert Museum, showing models and drawings to illustrate the art of the theatre, in past and modern times, from the designing of stage scenery and costume to the advertisement poster.

Gift of Property to L.C.C.

Sir Howell Williams, Deputy Chairman of the London County Council, has offered to present to the Council the freehold of part of the Copenhagen Estate, comprising two blocks of property required for the enlargement of the school playground, together with the freehold of a further block of property adjoining.

Will of Sir Rowand Anderson.

Sir Rowand Anderson left £20,000 and certain property to various charities, and his collection of furniture and china to be placed in Holyrood Palace. As regards the residue one-half is to go to the Institute of Scottish Architects, and the other half equally between the Royal Infirmary and Longmore Hospital, Edinburgh.

Halifax War Memorial Competition.

The conditions of this competition have not been submitted to the R.I.B.A., and the Competitions Committee desire that members intending to compete should satisfy themselves that the conditions are in accordance with the R.I.B.A. Regulations. Unless the conditions are strictly in accordance with the regulations the competition will be banned.

King Edward's Statue.

The First Commissioner of Works states that rapid progress is being made with the erection of the plinth of the statue of King Edward VII, and it is necessary that the removal of the Lord Napier statue from Waterloo Place should be commenced speedily. It is now proposed to erect the Napier statue on a site in Queen's Gate, South Kensington.

Housing in Mining Areas.

The National Housing and Town Planning Council are preparing for a long contemplated educational campaign with regard to housing and town planning in mining areas. Already a hundred thousand houses are included in the housing schemes of local authorities for mining areas, but in the opinion of the Council this programme, when completed, will leave many problems still unsolved, and more especially those relating to the lack of amenities in mining villages and towns. The Council has decided to invite the co-operation of various organizations interested in housing and health—including especially the Garden Cities and Town Planning Association—in convening a Women's National Housing Congress to be held in the late autumn of the present year. The principal discussion of the congress will relate to the National housing programme, and the congress will be asked to throw all the weight of its influence in securing the building of at least 500,000 houses.

Wednesday, July 13, 1921. Vol. LIV. No. 1384

THE ARCHITECTS' JOURNAL & Architectural Engineer

With which is incorporated "The Builders' Journal"



LOUIS FRANCIS ROUBILIAC

Roubiliac was born, by all accounts, at Lyons—it is generally supposed about the year 1695; studied under Balthazar, of Dresden, sculptor to the Elector of Saxony, and came to London in 1720, when he was twenty-five years old. The first of Roubiliac's undertakings was a statue of Handel for Vauxhall Gardens, and his last a monument for the same great musician for Westminster Abbey. His many executed works include monuments to the Duke and Duchess of Montagu at Boughton, in Northamptonshire, and of Sir Peter Warren, Marshal Wade, and Mrs. Nightingale for Westminster Abbey; statues of Shakespeare for Trinity College, Cambridge, and of Sir Isaac Newton—now in the British Museum—for David Garrick, and numerous busts, his most famous being those of Ray, Willoughby, Newton, etc., for Trinity College, Cambridge. Roubiliac died in London in 1762.

27-29 Tothill Street, Westminster, S.W.1.

The George Washington Memorial, Trafalgar Square, London

Jean Antoine Houdon, Sculptor



Photo Topical.

It was in 1785 that Houdon, the great French sculptor, was commissioned by the State of Virginia to execute a marble statue of George Washington. For this purpose he crossed the ocean and spent two weeks at Philadelphia, making studies and a life mask of the future president. It is a bronze replica of this statue that, presented to this country by the State of Virginia, has now been erected before the National Gallery, in Trafalgar Square.

THE
ARCHITECTS' JOURNAL
27-29 Tothill Street, Westminster, S.W.1.

Wednesday, July 13, 1921 Volume LIV. No. 1384

Notes and Comments

The Universities of London and Paris

LORD HALDANE'S remark, at the Empire Universities Congress at Oxford, that "The tide of democracy is lapping round the bases of our institutions, and to-day it is lapping round the foundations of our universities," was capped by a letter that appeared in the newspapers simultaneously with the report of his speech. Sir Charles Walston, writing from Cambridge University, outlined a scheme for the extension of the University of Paris. It appears from a communication that Sir Charles has received from M. Paul Appell, President of the Council of the University of Paris, that a Cité Universitaire is to be built on the site of three bastions of the demolished fortifications (about twenty-one acres), and the project includes the provision of means for the healthy and economical housing of students, women as well as men, and land adjacent to the bastions will be converted to a park, which will include extensive playing-fields. Special provision is to be made for British students, for whom it is proposed to build a college or hall, and a small English committee that was formed after a meeting at the Mansion House last February is specially interested in this particular means of promoting the "academical *entente*." Sir Charles, who is a member of that committee, expresses the hope that the English-speaking peoples will co-operate in this enterprise. Against this hinted appeal for funds not a word shall be said. Money were well expended on so excellent an object. Yet it must not be forgotten that London University is still without a home of its own, and has no money to provide one. That is a humiliating reflection, and this grand Paris scheme intensifies the need—not for counterstroke, that is too harsh a term—for adequate means of reciprocity. London requires facilities for exchanging hospitalities, and London's university buildings must be planned with this object kept well in view. Probably this development has not been overlooked, but Sir Gregory Foster, the Provost, made no reference to it in his report on the work of the past session. He stated, however, that the Senate, having accepted the Bloomsbury site presented by the Government, would use it primarily for the erection of a Senate House, and for the removal of King's College from the Strand. The first university building on the new site, however, is the Institute of Historical Research, which was opened last Friday by the President of the Board of Education, while the next building is to be a house for the newly founded University Union. Sir Gregory mentioned also that the scheme for the completion and equipment of the south-west wing for the Faculty of Engineering had made progress during the year. They are, therefore, fully committed to the acceptance of the Bloomsbury site. Nevertheless, the London County Council, at its meeting last week, asked the Board of Education and the University Senate to "explore the possibilities" of the Holland Park estate, which comprises thirty-five acres against the Bloomsbury eleven and a half. Although the Council's recommendation is a little belated, certainly it should be read in the light of what is being done in Paris. We have always held the view that the Bloomsbury site should be wholly occupied by administrative buildings, not for the congestion of colleges; and it is not reassuring to see that, presumably in advance of a definite general scheme for a noble grant, the site is being filled up piecemeal with educational departments that ought not to be there. Put them on the Holland Park site, which is understood to be going cheap, as well as a fine French college in retaliation for the British College in Paris, and leave the headquarters complete in themselves, and serene in their Bloomsbury isolation. Both sites are wanted for the university of the capital of the Empire, especially when we are expecting more students from France and the Colonies; while, as Lord Haldane said, Democracy is clamouring for the higher education. Both sites can be used, and others also. The Right Hon. A. J. Balfour, presiding at the luncheon at which the Government entertained the delegates to the Congress of the Universities of the Empire, advocated a freer interchange of students and teachers between foreign and British universities, as a powerful method of developing still further "that close co-operation in matters spiritual and intellectual which would bear admirable fruit if it could only be brought to perfection." It is in that light that the buildings of London University should be regarded. They are to acquire more and more a cosmopolitan character. They are to have a much wider reach and significance than they have had hitherto, and with this idea in view they will be conceived and designed: their façades stamped with their high destiny in the promotion not only of Imperial greatness, but of international amity and of social concord at home and abroad. On this notable extension of the university idea, the architectural profession will no doubt be quick to seize. They must link up with the universities, and see that technical education is properly co-ordinated in the general scheme.

The Housing Fiasco

Sir Alfred Mond and Mr. Kellaway can sincerely condole with each other. Each has inherited a damning legacy. Each is trying, more or less cheerfully, to make the best of a bad job. What persuaded Mr. Kellaway to assume the soiled, tattered, and moth-eaten mantle of his predecessor as Postmaster-General is not clearly evident; but the case of Sir Alfred Mond is more explicable. Mr. Kellaway, finding that his predecessor had sought to double the revenue from postage stamps by doubling their price, was greatly struck with the originality and ingenuity of this expedient, and resolved to carry on with it, in spite of universal obloquy. Sir Alfred, finding that Dr. Addison had gone a tremendous distance in the wrong direction, stopped the engine and drew out the fire, leaving the homeward journey for pedestrian exercise. He "homeward plods his weary way, and leaves the world to darkness" and his department's dupes as to what, after all, is going to be done about the housing—question, it used to be called, and question it is again. It is like flogging a dead horse to berate the Ministry of Health for its stupendous muddling of the housing movement. What the Ministry has done cannot, unfortunately, be undone, but a pedestrian Minister is much safer, or is at least likely to be much less expensive, than a mercurial Minister with wings on his heels, and thereby energetically tripping himself up and making no progress except towards the precipice above the abyss. Sir Alfred Mond has said explicitly that housing enterprises instigated by the Government "shall not be left in

the lurch"; but how profound the pity that it should have become necessary to offer that assurance! Government, in fact, has left the housing question in a more disastrous muddle than the worst pessimists had predicted. All which proves the crass folly of mixing up politics with business. The next candidate for the stool of penitence is the Office of Works, to which the profession is now directing very special attention. It has grown intolerably plethoric and undemocratic, and must, in the words of the old slogan, be "mended or ended" before its power for mischief is further developed. Unfortunately, the consequences of the heartless abandonment of the housing business will be heavily visited on the architects who have been engaged on such schemes on the faith of Government promises to local authorities. Many schemes, all over the country, will be left derelict, not only disappointing the architect's legitimate expectations of work to do, but in too many instances leaving him to whistle for his money for work already done but not carried to maturity. This Government breach of faith in the matter of national housing is nothing short of a national scandal.

Skill and Wages

Why does a man become a skilled craftsman? Mr. P. H. Palmer, vice-president of the engineering and architectural section at the recent Royal Sanitary Institute Congress at Folkestone, revealed the grand secret. He said: "The difference in wages between the skilled and the unskilled man is so small that there is little inducement for a worker to become a skilled man and still less a super-skilled man. Unless we come back to the principle of paying a man what he is worth, it only requires a few years before there will be an absolute dearth of skilled men and artistic workers." So there we have it, simple as shelling peas. "Money makes the mare to go"; also creates the artist, or at least the art-craftsman! How pathetic a fallacy! What sublimely trustful faith in the magical power of filthy lucre! No, sir! A man does not perfect his skill for greed of the few shillings a week extra it will bring him, but because the exercise of his skill brings him an exquisite sense of power and pleasure that is not to be expressed in cash values. But there is a certain type of mind that is absolutely blind to other incentives.

The New Impulse to Building

The downward tendency of prices everywhere observable will gladden the heart of the architect. Inflated prices for labour and materials, and protracted bureaucratic interference with building operations, having harassed him beyond measure, he is as a shipwrecked mariner suddenly sighting from his ill-provisioned raft a sail on the horizon. Wages in the building industry have been adjusted by the National Wages and Conditions Council for that industry to a point that makes building practicable. It is not that the architect, or the building-trade employer, rejoices to see the craftsman deprived of fourpence or fivepence an hour in wages, but that the multiplication of those figures makes a grand total which often decides the issue when to build or not to build is the question. Evidently the operatives are hearkening to "the gospel of sanity," and forsaking the suicidal policy of charging so much for their services as to provoke wholesale abstentions from building. Widespread announcement of the fall in prices will restore confidence everywhere, and the long-deferred building boom is at length in sight. It was, however, the settlement of the coal dispute that removed the greatest obstacle to building progress—or to progress of any kind except the facile descent to Avernus, which, however, is retrograde rather than progressive. Simultaneously with the close of the coal dispute it was announced that the threatened strike of the engineers was not likely to materialize. For the moment, then, there is no obstacle in view that threatens serious hindrance to the country's industry, which should now go full-steam ahead. As the City editor of "The Times" hastened to assure us, "given the will to work, toleration, and a good heart, the prospects of recovering our trade are bright enough." Confidence being restored, much building work will be in immediate demand. It therefore seems extremely likely that, as already inferred above, architects and builders are about to enter upon an exceedingly busy time—not merely in designing, building, repairing, and altering business premises, but in meeting the demands consequent on the improving incomes of those who for various reasons—the coal crisis not the least of them—have perforce restrained their impulse to build new dwellings or renovate the old.

Criticism of Designs

A phase of this question which has received less attention than it demands is brought to mind by an announcement respecting the June *projet* at the Society of Architects Atelier. The subject set was the lay-out of "A Central Institute for Scientific Research," with special reference to facilities for aeroplane and airship hangars and an aerodrome. Obviously the subject calls for the judgments of three kinds of critics. Accordingly the designs were submitted to Mr. Arthur J. Davis, F.R.I.B.A., for architectural opinion; to Mr. C. G. Grey, Editor of "The Aeroplane" for technical assessment; and to Air-Commodore H. M. Brooke-Popham, C.B., D.S.O., etc., who, as Director-General of Research at the Air Ministry, was in a position to survey the designs with comprehensive view. Here, surely, is yet another striking instance of the growing prevalence of the spirit of co-operation. How strange that such palpably common-sense methods should have been hitherto so carelessly neglected! But the necessity for winning the peace as well as the war is awakening us to the advantages of co-operation and conference.

Unfair Architectural Competitions

The secretary of the Society of Architects is, no doubt, completely justified in drawing attention to the difficulty of dealing with unfair architectural competitions. His suggestion that the Institute and its allied societies, acting in conjunction with the Society of Architects, should issue a standing order or by-law prohibiting members from entering competitions not announced as approved by a joint-committee of the bodies concerned, seems quite businesslike. At present, procedure is casual rather than systematic. Occasionally members may even take part in competitions that deserve to be banned but are not, the societies being afforded no opportunity to examine the conditions, and the competitors being too careless to detect the elements of unfairness. So vigilant are the respective associations, of course, that very few unfair competitions escape attention. Procedure, however, would be greatly simplified, and the number of unfair competitions would be greatly reduced, if it were more generally understood by prospective building owners—particularly by local authorities—that before issuing competition conditions it would be prudent to submit them for the approval of a representative committee of allied architects, who, by pointing out in advance of issue any amendments required, would prevent the friction and delay ensuing on the issue of conditions with which members were forbidden to comply. Local authorities often—possibly in most instances—append to their advertisements for tenders the legend, "Fair wages clause." Why should they not give themselves the further satisfaction of being able to authenticate their conditions with some such sound form of words as, "Approved by the R.I.B.A. and the Allied Societies"? Economy commends this course. Local Authorities would be spared the trouble and expense of reprinting their schedules (to say nothing of avoiding the humiliation of owning themselves at fault); the architectural organizations need not duplicate their work in issuing warnings, and the professional press would save much space now wasted in supplementing the ban issued by the Institute with that prepared in almost identical terms by the R.I.B.A. Certainly the secretary of the Society has hit upon a small but striking example of the benefits of co-operation.

Registration of Architects: Object Lessons from Parliament

By MAJOR H. BARNES, M.P., F.R.I.B.A.

I AM not going to state the arguments for and against the Registration of Architects. That has been done many times; the most notable recent instance being at the Conference of the Royal Institute of British Architects lately held at Liverpool. A full report of the speech of the President is published in this issue of the JOURNAL, and I recommend its perusal to all those who desire to see the case put as it has been put by the man who, above all others, may properly be described as the statesman of the architectural profession. After all, statesmanship is pure architecture. It uses the materials that are to hand, and in the right place and at the right time builds up the structure it has in mind. The task that has been set me is rather to show the kind of conditions through which any Registration Bill must pass that is submitted to Parliament, and I propose to discharge my task by setting out, first of all, an account of the proceedings which have taken place on the introduction of two Registration Bills in the present Parliament, and having done so, to draw from those proceedings some inferences which should be useful to those who have the framing and the negotiation of a Registration Bill for the Architectural profession.

The Nurses and the Dentists.

The two measures are the Nurses' Registration Bill, which was introduced on the 28th May 1919, and the Dentists' Bill, which was introduced on the 7th June 1921. The circumstances surrounding the passage of each are of the utmost interest, and full of lessons to those who desire to promote and pass a Registration Bill for Architects.

In appealing to Parliament for registration, after the war, nurses possessed a great advantage over a pre-war application. After the gallantry and heroism of our men, the devotion and courage of our nurses took hardly a second place, and any measure proposed to the House having for its object the improvement of their status and remuneration was sure of sympathetic audience. Not that the sympathy was wholly born of war-time experience, for in 1908 a Bill for the registration of nurses was introduced into the House of Lords, and there passed through all its stages; whilst in 1914, under the ten-minutes rule, a similar Bill was introduced in the House of Commons, and given a first reading by a majority of 228.

Importance of Precedent.

Nothing appeals to Parliament so much as a precedent, and the introducer of the Nurses' Bill did not even feel it necessary to state an argument for registration. Parliament, he said, had conceded that principle, and it was now only a question of methods. That such registration existed in many of our Dominions and Colonies he did not fail to bring to the notice of the House, nor did he omit to refer to the fact that a Central Committee of the British Medical Association and of the Nurses' Association was in favour of the Bill. It gave three years' grace to unregistered nurses during which they might, subject to a few simple conditions, come on to the register. Registration was not to be compulsory, but no person was to be allowed self-description as a registered nurse without being so. At the end of three years it was intended to set up a higher standard of qualification before entrance to the register could be secured. Supplementary registers for male and mental nurses were to be kept. The Bill was said to give security to the public, and to be an advantage to the smaller hospitals in securing the standardization of the training for nurses. Such was the condition of things when the Bill got its second reading. Nobody opposed the Bill. Everybody agreed with its principles. No clouds, indeed, seemed to be on the horizon. Everything pointed to a smooth passage.

But there was a cloud, a little cloud, no bigger than a man's hand, which faintly appeared during the course of the second reading debate. It was indicated that there was a College of Nursing which did not feel that its privileges had been preserved in the Constitution proposed to be set up under the Bill. This little cloud grew into a storm, and the Bill, which opened so well, which managed to get through its Committee stage, was wrecked on Report, and finally its consideration was adjourned *sine die*.

What really happened was that as a result of vigorous propaganda the House was divided into two camps, one of which stood for the College of Nursing, and the other for the Nurses' Association, which had promoted the Bill. Members were bombarded with literature. Showers of leaflets fell upon them, setting forth the claims of this or that body to secure some amendment in the Bill.

Why the Nurses' Bill Failed.

The House of Commons is, in some respects, a timorous assembly, and likes to shelve awkward questions. When the Government came forward and suggested that the Bill should be withdrawn, giving a pledge that they, in their own time, would bring in a Nurses' Registration Bill, the proposal met with a general acceptance, and the gallant introducer of the Bill found himself at last compelled to bow to the decision of the House. The rocks upon which the Bill foundered were the disproportionate number on the Council given to England; the preponderance of matrons; the omission of nurses in Children's Hospitals; and, greatest reef of all, the inadequacy of numbers on the Council given to the College of Nursing. The words in which the Minister of Health finally stated the Government's attitude are worthy of consideration by all those who are interested in the promotion of a Registration Bill for the Architectural profession. These are his words :—

"The Government arranged for meetings with the various parties who are interested in this Bill, and have had conferences with them, with the view of discovering whether a sufficient measure of agreement could be reached by which we could obtain a Bill. I am sorry to say that the result of these conferences has convinced me, against my will, that such an agreement is not obtainable. I think it arises from the fact that those who are interested were not by any means agreed as to what was implied by registration. In some quarters it was thought that the authority responsible for registration should deal with the conditions of training—not only the standard arrived at, but the conditions and conduct of training. Another difficulty is that it appears to be thought by some that the body responsible for the register should control the conditions of employment. I found that the differences on these and kindred subjects were so great that it was quite out of the question to bring about an agreement. The controversy appears to have been unfortunately mixed up with personal and sectional issues which cannot be reconciled."

Unity Essential.

No words could indicate more clearly the things which make or mar the prospects of a Registration Bill.

A profession divided against itself cannot succeed in the House of Commons. This is the principal object-lesson of the Nurses' Bill.

Let us pass now to the Dentists' Bill, with a happier experience than the one we have been considering. It

started with a great advantage—that of being introduced by the Government. It was based on the Report of a Committee. It was not the beginning of the regulation of the profession of Dentistry. There is a Dentists' Act of 1878 which has been ineffective in preventing the growth of a great practice of men not qualified under its provisions. The Bill had the further advantage of not encountering the opposition of important bodies concerned. The British Dental Association, the Incorporated Dental Society, and the Chemists' Dental Association had all agreed to accept it. In all these respects its prospects were most propitious. Let us see how it was viewed, and what attempts were made to modify it during the Committee stage.

The Case of the Dentists—

The principal attempt was the effort to set up a separate list of people coming on to the Dentists' Register under the Bill. This would have distinguished them from those who were already registered on the Dentists' Register under the Dentists' Act of 1878. The arguments used in support of the proposal will not be unfamiliar to those who have taken part in the efforts for the Registration of Architects. It was said :—

"The object of the Bill is to establish the Dental Profession on a sound permanent footing. For that purpose it is proposed to bring in a large number of persons who, in the eyes of the law, have not been qualified to practise dentistry hitherto. It is a very large and generous action, on the part of those who have already qualified, to agree to this extension. They have given hostages to fortune, and have undergone long years in training, to follow out the course established under the law, and to get put on to the qualified register under the Act of 1878. These men have spent time and money to do that which the State considered the minimum necessary. They admit now, in the national public interest, that the great thing is to secure control and check over those not so qualified. They object, however, to the idea that men who have gone through the training in the theory and practice of dentistry should be put on the register on equal terms with those who are not so qualified, so that in the eyes of most men and women there would be no difference between them. The proposal is that those who don't take the examination are to be shown on the special list. We want to be shown readily and clearly those who are and those who are not properly qualified."

—and the Government Position.

The Minister of Health refused to accept the proposal in these words :—

"The Government cannot accept the amendment. I have some sympathy with the point of view put forward that dentists who have pursued long and careful scientific study, and who have thoroughly qualified themselves in every direction for their profession, may feel that the admission of a large number of men to the same register, who have not undergone the same training as they have, is a form of dilution. But the whole scheme and purpose of this Bill is this : at the present moment anybody can set himself up as a practising dentist without any qualifications, restraint, or discipline. The dental profession, i.e. the people who are on the register of 1878, are the people who have complained of this state of things. They are the people who want this state of things to come to an end. They are the people who have asked that the unregistered dentist should be brought under professional discipline. As this amendment stands you are not going to put these people on the register. You are going to say : 'We are now going to have a separate list of sheep and goats.' I don't know whether the unregistered dentist would not be in a better position in the present condition of things, because nowadays there is no such list of sheep and goats, although there may be a list of sheep. You cannot have it both ways. It will be a great future advantage to get an entirely unregulated dental practice prohibited; and if, at the eleventh hour, when we have got most of the various interests into line, we should break up again and throw the whole thing back into the melting-pot, it would be a great pity."

An attempt was made to get a body named the National Dental Association a place in the constitution of the Bill. This was refused, and in the course of discussion this was said :—

"That as a real active Society the National Dental Association has, in the main, only arisen and obtained numerous adherents for the political purpose of obtaining registration under this Bill."

The Bill provides a period during which all unqualified practitioners might, on certain comparatively simple tests, secure admittance to the register; and it is estimated, as already indicated, that some ten thousand men will be added through its means. The Bill passed through all its stages, securing its third reading, and is now a statute.

Attitude of Labour.

I will conclude this section by quoting from the speech of a Labour Member, on the third reading, which is of interest as showing the attitude of the Labour Party towards registration proposals :—

"Nearly every hon. member who has spoken seems to think that this is a Bill affecting merely dentists and dental practitioners, and that all we have to consider is whether they are placated; whether they are satisfied that their interests in life—their vested interests in the practice of a profession—have been properly safeguarded. That is not the point of view from which we should look at this Bill. It is a question entirely of whether we are going to get a better dental service, and whether we are going to pay too much for getting it. An argument in favour of the Bill ought to be not that unregistered practitioners have got inside the charmed circle, but that the existence of this monopoly—for it will be a monopoly—will ensure a higher standard of dental practice throughout the country. Under present conditions quite poor men become, first of all, dental mechanics, and then dental practitioners. The doctoring profession draws almost entirely from the middle classes, but the dental profession draws largely from the working classes. Once you get the present unregistered practitioner and the fully qualified practitioner together on this register, that would tend to restrict admission. There should be a large number of scholarships to enable sons of the working classes to be come fully qualified dentists."

Some Conclusions.

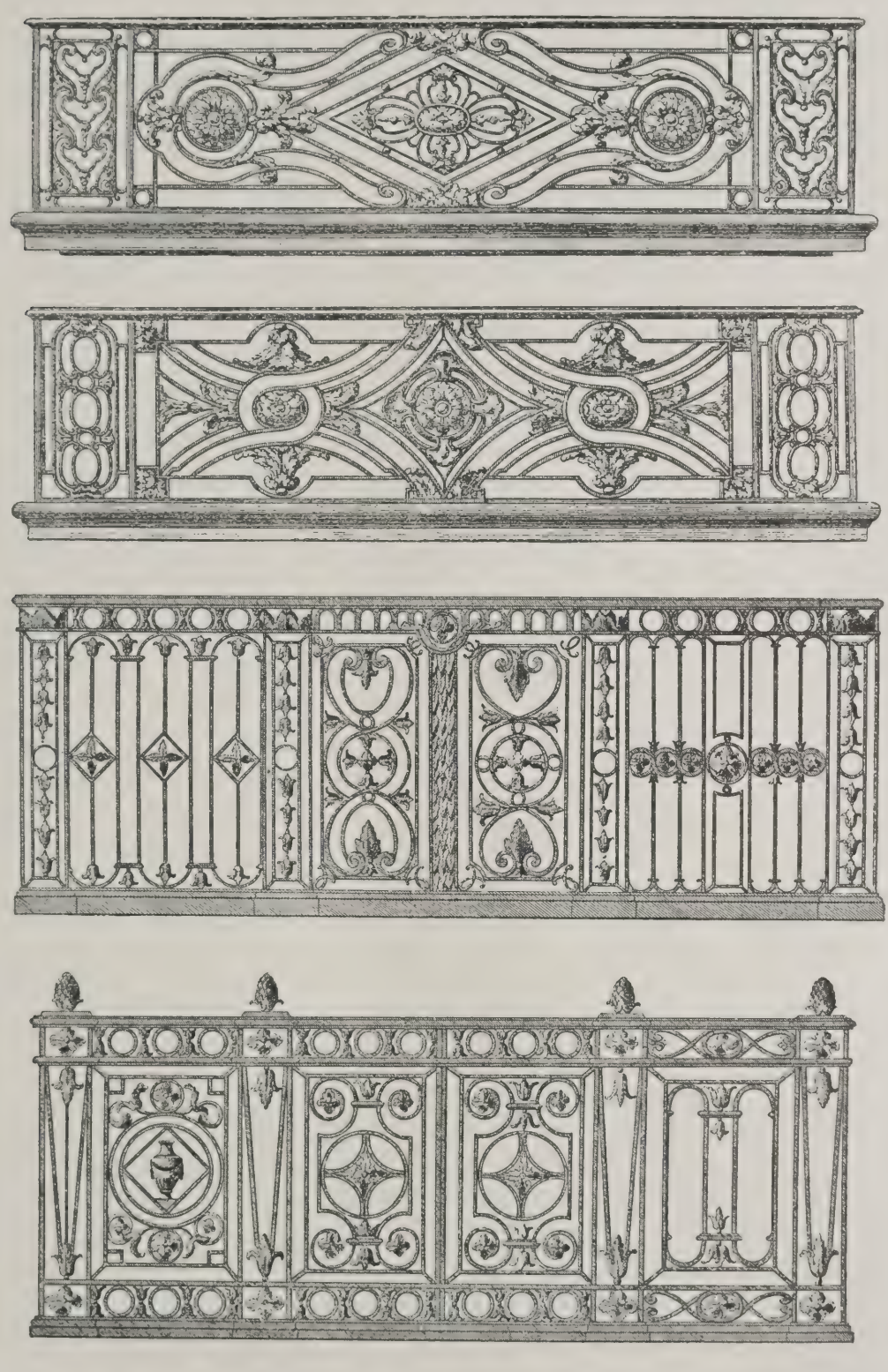
A consideration of these proceedings brings out the fact that Parliament will not listen readily to any registration proposals which, on the one hand, impose compulsion and, on the other hand, maintain differentiation.

As the Minister of Heath says, "You can't have it both ways." If the thing is to be done it must be done in a large and generous way. Registration, to be secure, will first of all necessitate agreement inside the profession of architecture; it must then conciliate kindred associations with interests that need safeguarding. It will finally have to give, as a *quid pro quo* for the restraint imposed on unqualified men practising in the profession, a status not easily distinguishable from that secured by the qualified practitioner. Time will show whether this can be achieved.

Meantime it is evident that a great deal of work requires to be done by those who desire to secure registration before proposals can be got into such a form that they will secure the support required to enable a Registration Act to be put on the Statute Book.

[Major Barnes's article will be studied with the careful attention that is due to an authoritative examination of the position with regard to Registration from the Parliamentary point of view. His researches reveal many points of vital consequence to those who will be responsible for framing a Bill for presentation to Parliament.]

French Metalwork. 16.—Louis XVI Balcony Railings



Above are shown some typical examples of Louis XVI decorative ironwork. Each in its own individual way offers a wealth of motifs capable of adaptation to modern requirements.

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Architectural Office Administration

By FRANCIS LORNE, A.R.I.B.A.

(*Concluded from page 8, No. 1383*)

Building Cost Statement

When the totals under the headings in the table shown below are complete, they are ready to be transferred to the "building cost statement," shown on form No. 27. This statement shows the actual expenditure, with direct charges, on each building operation; also the total credit each represents in payments made by the client for services rendered; the amount of possible fees; the amount of probable cost; contract amounts; extras, omissions, and certificate amounts. For a building of average size these latter can easily be kept in this statement for reference. Should the building operation, however, be a large one, it would be advisable to take these last four columns and make a special contract statement of them. If this statement is totalled up at the end of each month it will show the amount of money that has been expended on the preparation of drawings for a building, total receipts for same, and relation of progress of work to returns made.

Petty Cash Statement

Form No. 28 shows a petty cash statement, subdivided to show the manner in which the money is disposed. A glance at the totals of these columns once per month will show clearly whether unnecessary expenditure is being made on certain items.

Bank Journal

Form No. 29 which, for want of a better name, is called "bank journal," is a combination of bank book, cash book, etc. All incoming cheques are placed at the left of the items, and all cheques drawn placed on the right of same, which latter items are extended and detailed in the various columns to the right. The number of columns may be extended or contracted as the business in the office demands. The difference between cheques received and cheques drawn will represent the cash in bank.

The balance of this statement once per lunar month will show pretty clearly to the average architect his financial status. If it is desired, columns can be added for deposit account as well as current, also investments, if any.

Each of the statements mentioned above should be ruled off and balanced once every four weeks, and placed on the table of the partner of the firm in charge of such statements, and this will prevent reckless expenditure on materials or salaries, or time being spent on drawings without return, and render less probable that close approach to insolvency which is common to many professional offices.

TIME COST STATEMENT.

FORM No 26

1921

Date.	Name.	Offices, Maiden Lane.	Buchanan House.	Midland Bank.	Barker Store.	Academy of Music.	Overhead.	Direct Charges.	Total Paid.	Ref.
March 28	James Gordon	19 . .	16 . .	10 . .	20 . .	15 . .	5 . .	1 10 .	86 10 .	
	Raymond Henderson	5 . .	10 . .	20 . .	15 . .	16 . .	19 . .	2 . .	87 . .	
	James Thompson ..	5 . .	4 . .	3 . .	10 . .	15 . .	. . .	. . .	37 . .	
	Thomas Alwyn ..	4 . .	3 . .	5 . .	8 . .	8 . .	. . .	. . .	28 . .	
	Robert Fairlie	2 . .	. . .	. . .	18 . .	3 . .	. . .	. . .	23 . .	
	Geo. Barclay	1 10 .	. . .	12 . .	2 10 .	. . .	. . .	. . .	16 . .	
	Helen Laurie						16 . .		16 . .	
		36 10 .	33 . .	50 . .	73 10 .	57 . .	40 . .	3 10 .	293 10 .	
	Partners	24 . .	26 . .	30 . .	35 . .	31 . .	24 . .		170 . .	
	Drafting	11 . .	7 . .	8 . .	36 . .	26 . .			88 . .	
	Superintending ..	1 10 .	. . .	12 . .	2 10 .				16 . .	
	Overhead						16 . .		16 . .	
	Direct Charges							3 10 .	3 10 .	
		36 10 .	33 . .	50 . .	73 10 .	57 . .	40 . .	3 10 .	293 10 .	

D

BUILDING STATEMENT.

FORM Nº 27

Offices, 70 Maiden Lane, for Geo. Duncan, Esq.

1921.

Date.		Incoming Cheques.	Items.	Salaries. Partners.	Salaries. Draughting Office.	Superintendence.	Overhead.	Direct Charges.	Total Debit.	Total Credit.	Total Fees.	Building Cost.	Contract Amounts.	Extras.	Omissions.	Certificate Amounts.		Ref.
March	1		Salary, James Gordon	85 . .					85 . .									
,,	1		Salary, Raymond Henderson	85 . .					85 . .									
,,	3		Salaries, Drawing Office, per statement		70 . .				70 . .									
,,	3		Salaries, Clerk of Works			40 . .			40 . .									
,,	3		Secretarial and Overhead				30 . .		30 . .									
,,	5		Extra Prints, Geo. Duncan, Esq.					2 10 .	2 10 .									
,,	7	450 . .	2nd Instalment Fees							450 . .								
,,	9		Estimate of Messrs. Barclay & Co., Ltd.									15000 . .						
,,	12		Fees as arranged with Geo. Duncan, Esq.								1000 . .							
,,	16		Electric Light and Power, Brown & Co.										1200 . .					
,,	17		Substitution Marble Base for Oak, Board Room											85 . .				
,,	19		Omit 2-Power Plugs, Hall 3rd Floor												2 5 .			
,,	23		2nd Instalment, Halloway & Co., Heating													350 . .		

PETTY CASH STATEMENT.

FORM Nº 28

1921

Date.		Cash in.	Items.	Stamps.	Sundry Materials.	National Health Insurance.	Small Fares.	Tips.	Cash out.	Ref.
March	1	6 2 1	Balance brought forward							
,,	3		Box drawing-pins		. 1 6				. 1 6	
,,	3		Insurance stamps			. 5 .			. 5 .	
,,	4		Typewriter ribbon		. 3 .				. 3 .	
,,	9		Stamps. (See stamp-book.)	. 10 .					. 10 .	
,,	10		Bus fare to Bank and return				. . 6		. . 6	
,,	12		Tip to coalman					. 2 .	. 2 .	

(See article on Architectural Office Administration, page 39.)

1921

BANK JOURNAL.

FORM No 29

Date.	Cheques Received.	Items.	Cheques Drawn.	Salaries.	Drawing Materials.	Prints, etc.	Stationery.	Travelling Expenses.	Lighting and Heating.	Rent, Rates, Taxes.	Income Tax.	Petty Cash.	Direct Charges Clients.	Investments.	General Office Expenses.	Insurance.	Ref.
March 1	1001 10 4	Balance															
,, 1		James Gordon. Salary	85 . .	85 . .													
,, 3		Blue prints, etc. B. & Co., Ltd.	5 10 .			5 10 .											
,, 4		Tracing cloth, cartridge, tracing paper	4 . .		4 . .												
,, 6		Office embossed paper..	2 10 .				2 10 .										
,, 7		Fare to Reading to Buchanan House, and return	1 5 .					1 5 .									
,, 14		Taxes, House Duty, etc.	45 . .							45 . .							
,, 15		Income Tax up to blank date	75 . .								75 . .						
,, 17		Coal and coke	4 10 .						4 10 .								
,, 19		Postmaster-General, Telephones	3 10 .												3 10 .		
,, 20		Subscription to Blank Journal	1 10 .												1 10 .		
,, 21		Investment in L.C.C. Housing Bonds	500 . .											500 . .			
,, 27	450 . .	Second Instal., Fees on Offices, Maiden Lane ..															
,, 28		Insurance, General Accident	8 10 .													8 10 .	
,, 28		Extra prints of plans, Buchanan House	2 5 .										2 5 .				
,, 29		Supplementary drawing for Petty Cash	5 . .									5 . .					
,, 31		Balance carried forward	708 . 4														
	1451 10 4		1451 10 4														

(See Article on Architectural Office Administration, page 39.)

Sale of Stowe House

Stowe, an eighteenth-century paradise, has come under the hammer at last—the most notable sale for many a year. The house and some three hundred acres round it have been sold for the astonishingly small sum of £50,000. This price is the sensation of the country round. People talk of the fine Italian marble mantelpieces and the Grinling Gibbons carvings as worth the money alone. Still, the point to be grateful for, says a writer in the "Manchester Guardian," is that these superb things that make Stowe as splendid as any royal palace are not to be torn out and sold abroad. The new owner talks of giving the house and grounds to the nation. It is of priceless worth as a summary of a great age in art and letters.

You reach it along a renowned avenue from the rosy-red village of Buckingham—an avenue broken by a tall Corinthian arch in stucco. Thence you make a detour through woods of beech and pine, and suddenly the façade, pompous as an Alexandrine, is there, coloured the yellow of gold, its Ionic portico flanked by long columned pavilions. As it stands, the house is early Georgian, and after ages have added little that is significant. It is perfect of its Augustan period, outside and in. Even the auctioneer in his sumptuous catalogue laments the necessity of destroying its harmony.

The most potent spirit of its past is that of Field Marshal Lord Cobham, who fought with Marlborough. A portrait of him simpers at you in the crimson drawing-room belying a reputation for ferocity. His campaigns over, he came back to Stowe and made it—he and Lord Temple later in the century—what is still a fairly complete reflection of the classical fashion in architecture and decoration. Vanbrugh and Kent worked at Stowe, and in the classic groves thronged with temples the eighteenth-century muse sang decorously. Stowe earned the formal compliment of Pope: "If anything under paradise could set me beyond earthly objects Stowe might do it."

Behind a great cool entrance-hall with a marble relief of Caractacus in the presence of Claudius, one entered the famous marble saloon, evidently designed after the Pantheon at Rome, lit in the classical way by an opening in the rich domed roof. A curious frieze imitated from Roman monuments runs round. This is one of the most ambitious rooms in England, belonging to the days when the great ducal houses were national show-places one visited as a matter of course.

Passing through a drawing-room fit for the chat of giants, you reach a seventy-foot long state dining-room glittering with gold plate and hung with rich tapestry pictures of the revels and triumphs of deities with the fullness of Rubens.

Even Horace Walpole tired of the crowded pomposities of Stowe. One can only record an impression of taking a long walk through a music-room, big enough to swallow a cottage, gay with arabesques and glowing with stiff ceiling pastorals; a noble library, where the mellow gold of bindings was a relief from so much garishness; an amazing sitting-room, draped in blue silk, with Lely's Nell Gwyn (or "after") towering over you, and at the end of this suite the bedroom where kings and queens have slept.

Unification and Registration*

By JOHN W. SIMPSON, PP.R.I.B.A.

I HAVE been asked to say a few words about the Unification and Registration of our profession, with regard to which I have been privileged to play a leading part during the term of my presidency.

As you know, I came into office immediately after the signing of peace in 1919, and found myself at the head of a Council of whose activity and energy it is impossible to speak too highly. With such an instrument at my disposal, and the support and goodwill of an extraordinarily loyal profession at my back, it seemed clear that the time had come to attempt that reconstruction of our organization which had long been felt necessary. There was much latent dissatisfaction, especially among the younger men. It was felt that had the profession been able to speak with a single voice, we could have made it heard with far more effect than we did during the war and in the initial stages of national reconstruction. Architects were divided into two main groups engaged upon more or less the same work, and these, though not, perhaps, actually hostile to one another, were in a position of rivalry. Instead of bringing their united weight to bear on subjects of importance to the profession, their force was dissipated in desultory efforts, sometimes not even in the same direction. The Royal Institute and the Society were harmful to one another, and the lack of a single and representative headship paralysed all attempts of the profession to intervene in public matters with the effect to which its numbers, and its importance in our social system, entitled it. The Institute itself needed knitting up far more closely with its offspring, the Allied Societies.

Unity "within our Reach."

This want of harmony of which I have spoken was, however, but relative and superficial. The profession, as I have just said, is extraordinarily loyal, very free from jealousy, and ready and willing to work together for the common good. We have only to look for a moment at the divisions which ravage other liberal professions to see, with a justifiable complacency, that we are already far more advanced than they towards the ideal of unity; that our task is, in comparison with theirs, a light one; and that we are actually on the verge of achieving such a solid and effectual organization of British architects as exists in no other profession in the world. It is a great and inspiring thought. The accomplishment is within our reach at this moment. Let us put aside any small differences of opinion as to methods, and take one final, courageous step—all together—to make the Royal Institute of British Architects the single organization for the whole profession. The effort is well worth while. We are already unique, the greatest and most effectively organized body of architects in the world. In no other country has our profession attained such authority as the Royal Institute has achieved in this. It controls the whole architectural education in the universities and schools of the Empire; dispenses great honours; ennobles the great architects of the world by the award of the Royal Gold Medal; sets the standards of remuneration, of professional conduct, of examination, for all architects of the Kingdom; and, after revolutionizing the conduct of architectural competitions, is now able to, and does, dictate just and reasonable terms for its members to every Government and municipal authority with regard thereto.

* Full text of the address to the Liverpool Conference.

Registration at Once.

With Unity must come Registration; the closing of this great profession, whose proper practice needs long and costly training, to the unqualified quack. I do not propose to await the dilatory methods of Parliament before getting Registration in hand. True, we shall need an Act to legalize it, and as soon as the final touches are put to Unification we must get our Bill drafted, and push it forward. But it may take some time to get it through both Houses, and there is no reason why we should not set up the Register at once, with our own Registrar, and have a machinery in working order to which the Government will only need to give legal confirmation. It will supply the strongest possible evidence that the thing we ask for is needed, is practicable, and that reputable architects are unanimous in demanding it.

Matters have moved so rapidly during the past two years that it may be convenient, at this moment, to recall the steps by which we have advanced to the point at which we now find ourselves.

At the very first meeting of my first Council it was resolved, unanimously, to make a fresh effort to unify the profession, a resolution which was acclaimed by the whole professional press. Next, a general meeting of the Royal Institute appointed representatives of every architectural body in the Empire, of the different classes of the Institute, of the Assistants' Union, and of architects unattached to any society, to form a committee which should proceed to organize the Unification and Registration of the profession. This Committee was naturally a very large one. It met for the first time, an occasion which will, I think, be marked hereafter as historical, on July 20, 1920, and appointed as its Chairman the President of the Royal Institute, and as Vice-Chairman the President of the Society, with the Hon. Sec. of the Institute as its Honorary Secretary. I take this opportunity of acknowledging with profound gratitude the loyal support I have received from these two colleagues, Sir Chas. Ruthen and Mr. Keen. The hard work these gentlemen have done is known but to few, but it has entitled them to the hearty thanks of their profession.

The proceedings of the Committee were notable for complete and, perhaps, unexpected absence of discord; they there and then set up a Sub-Committee to work out details, and elected its members to the number of nineteen. Two alternative proposals were discussed, and referred to the Sub-Committee: the *first*, the absorption of all architects into one great body; the *second*, the federation of the existing bodies, and the formation of a central Council of their representatives.

With no loss of time the Sub-Committee set to work, the record of their discussions forming a substantial volume. On April 6 they produced the expected Report on the machinery for working out the two alternative proposals, which have become known as "Scheme A" and "Scheme B." In order to prevent delay this Report was communicated at once to all members of the parent Committee, so that they might be able to consult their constituents upon it before meeting to receive it formally.

The main Committee met again on May 12 last and proceeded to discuss the Report. It is worth noting that this Committee has adopted the methods of the new diplomacy approved of—but not followed by—the Peace Conference! Their meetings have not been private, but open to the press, with the result that the whole course of their discussion can be followed in the published reports. The result has fully justified the procedure.

Scheme "A."

After full debate the principle of "Scheme A" was adopted, *nemine contradicente*, and the following resolutions were passed :—

1. That the principle of Scheme A—namely, the bringing of all the Architects of the United Kingdom into membership of the R.I.B.A.—be adopted as the basis for unification.
2. That the matter be referred to the Sub-Committee to consider details and report to the Main Committee.
3. That the Committee recommend the Royal Institute to draft such alterations to its Charter and By-laws as may be necessary to comply with the principle of Scheme A, adopted this day by the Unification and Registration Committee, and to confer with the Council of the Society of Architects as to conditions of membership.
4. That six additional representatives of the Allied Societies be selected by the Chairman and Vice-Chairman from the members of the Main Committee to serve upon the Sub-Committee.

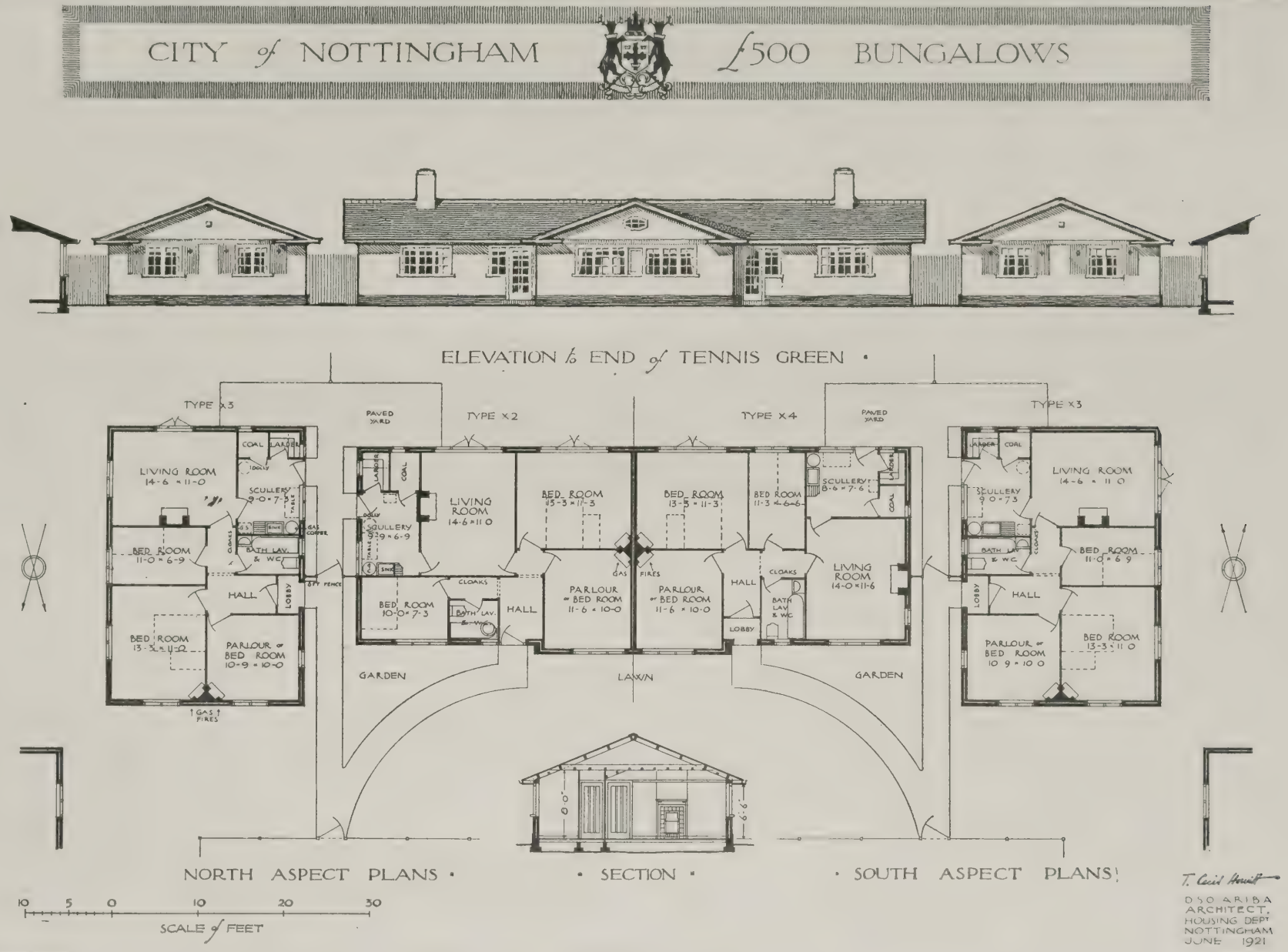
The effect of these resolutions is that the Society of Architects has agreed to amalgamate with the Royal Institute, and form one great organization, subject only to satisfactory arrangements with regard to classification.

The Council of the Royal Institute immediately accepted these resolutions, appointed a committee to draft the alterations in the Charter and By-laws needed to give effect to them, and directed a conference with the Society to arrange details.

In the meantime the Associates of the Institute had met Mr. Keen and myself

Modern Domestic Architecture. 28.—£500 Bungalows for the City of Nottingham

T. Cecil Howitt, D.S.O., A.R.I.B.A., Housing Architect to the Nottingham Corporation



Nottingham Corporation have discovered that the only possible way to provide reasonable housing accommodation at a cost of £500 is to build houses of the bungalow type, as above. Detail particulars of the scheme (which consists of a self-contained group of twelve bungalows) are given on page 45.

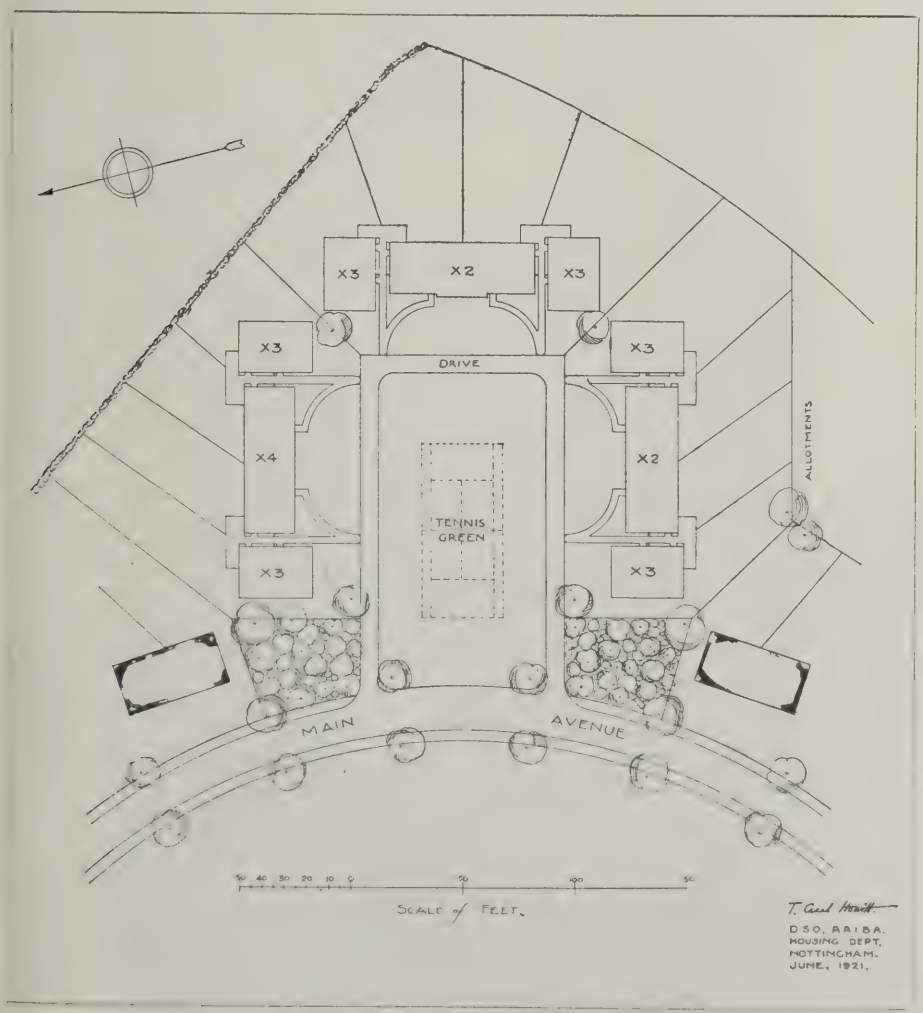
Of The
UNIVERSITY OF ILLINOIS

to talk over the position, in so far as it concerns their own class. As you know, a scheme had been prepared for fusion of the Royal Institute and the Society in 1911; this proved abortive by reason of the opposition especially of the Associate class, which now consists, practically, wholly of men who have passed the Examinations. I felt, therefore, that they had a right to be consulted as to their views before we went too far. It is pleasant to record that a high note of responsibility was struck at this meeting. The great importance of the movement was fully recognized, and the fact that some self sacrifice was necessary by members of the Royal Institute in order to attain the end in view. I am convinced that we have the Associates behind us in our efforts.

The President and Secretary of the Society, with Mr. Sadgrove, their Past-President, have, since that, met the Royal Institute Committee and agreed on general lines with them.

It is felt that it is undesirable to make any serious alteration to the Associates class. A certain number of undoubtedly qualified members of the Society will join us as Fellows of the Royal Institute, others will join a new Class of "Members R.I.B.A.," in which we propose to incorporate our own Licentiates. Members of Allied Societies, on the report of their Councils, will be admitted to the same Class, also unattached qualified men after scrutiny by the Council of the R.I.B.A. In order to strengthen the Associates Class we propose to institute a special examination for "Members" desiring admission thereto—from Associates they can proceed to the Fellowship, subject to the present qualifying requirements. The "Members" class is to be closed after a certain limited period of invitation, and will thus expire in course of time, leaving two permanent degrees of membership of the Royal Institute, the Fellows, and the Associates. During their existence they will have voting powers, of what exact degree is not yet determined.

Such is the general outline of the situation at the present date. The details have still to come before the Council, but it is well that you should know how far we have come along this long road—a road with far less numerous obstacles than we once feared. I do not hope that everyone will be entirely satisfied with everything proposed. There are always some who hesitate to take the necessary step, always some who criticize and raise objections—very useful people they are, too. But it is only by the sacrifice of some of our own pet views—we are all ready to sacrifice the views of others—that we shall attain real solidity and unity. We have never been so near it before. The finishing touches only are wanted to complete the structure we have together raised with such pains and mutual forbearance. Who shall dare take the responsibility of wrecking—on any selfish, any personal grounds—the Temple of Concord we are erecting, not for ourselves, but for the future good of those who follow us?



LAY-OUT OF GROUP OF BUNGALOWS FOR NOTTINGHAM CORPORATION.
T. C. HOWITT, D.S.O., A.R.I.B.A., ARCHITECT.

£500 Bungalows at Nottingham

For some time past the Housing Department of the Nottingham Corporation has concentrated on the question of producing reasonable housing accommodation at a cost of £500 per house. It was found that the only possible way to attain this low figure at the present day was to build houses of the bungalow type. A scheme was therefore prepared for a small self-contained group of twelve bungalows on the Highbury Road site, Bulwell, and tenders were invited from contractors who could deal rapidly with this specimen group. The lowest tender was received from Messrs. T. Barlow & Co., of Nottingham, whose price was £497 per bungalow complete, including all the necessary footpaths, fences, and drainage.

The scheme embraces three type designs to suit the various aspects, and the external dimensions of each type are exactly similar in order to standardize roofing. The great disadvantage of excessive frontage required for bungalows has been considerably overcome by the introduction of detached bungalows placed end-ways on, thereby obtaining a reasonable average frontage for the whole group.

The accommodation is up to the standard at present allowed by the Government for a non-parlour house, and one of the three bedrooms has been suitably arranged so that it could be used as a parlour where only two bedrooms are desired. An entrance hall of a good size has been provided in each type, and the small built-in gas fires in the parlour and the main bedroom are much appreciated. The passage-ways through the living rooms have been reduced to a minimum, and so arranged that they will not interfere with the easy chairs around the fire. The living-room fireplaces will be fitted with either Interovens or Excelsior ranges, according to the class of tenant anticipated, but in either case there will be back boilers to these to give an adequate supply of hot water to the sink, lavatory basin, and bath.

The designs are the first Nottingham type in which the w.c. has been placed in the bathroom, and while it is recognized that this is subject to a little criticism, at the same time a good deal of expense has been saved by this principle. The foundations are to be constructed in ordinary brickwork to the damp-course level, and above this point the outer walls are to be in 2 in. brick grip blocks, reinforced with diagonal wires on either side. The outer surface is to be finished with 1 in. of cement stucco treated with Pudlo, and the inner surface with cement plaster, the stucco being finished with colour-wash and the plinth tarred. The internal partitions will be in 2½ in. concrete slabs, and the ceilings in composition boards or plaster slabs.

The roof is to be constructed on the purlin and boarding principle, and covered with felt and red asbestos tiles with a specially large lap adequate to the somewhat flat pitch. The eaves gutters will be built up in wood and tarred on the inside. To improve the general effect a large projection has been given to the eaves and verges. The "N.H." gas fires from the Davis Gas Stove Co. will be

used, and specially built brick flues will be formed for these, terminating under the eaves or in the centre of the gables, with a special extract vent brick. All the rooms not fitted with fireplaces will be ventilated with ventilating grates. The windows of the main rooms will have, in addition to the usual side-hung casements, top hung hoppers, and the living-rooms will have French casements that can be folded right back. In some cases the bathrooms will be fitted with a combined bath and lavatory basin to assist the floor space.

An alternative estimate has also been arranged by means of which the outer walls can be constructed 9 in. thick, consisting of a 4½ in. brick wall on the outside, a 1½ in. cavity, and a 3 in. plaster slab on the inside, the two thicknesses being secured together with galvanized iron ties. The internal partitions are also to be in plaster. The plaster slabs in all cases will be cast with a finished face and set in plaster. By this method a very great percentage of the plasterer's work would be saved, and the bungalow could be much more speedily occupied. This method should prove a great boon in view of the shortage of plasterers throughout the country. The cost of the bungalows in this alternative construction would be £519 each, all inclusive as before.

The designs have been prepared and the scheme organized by Major T. C. Howitt, D.S.O., A.R.I.B.A., Housing Architect to the Nottingham Corporation.

(*See drawing on page* 43).

Correspondence

Unification and Registration Committee

To the Editors of THE ARCHITECTS' JOURNAL.

SIRS,—Mr. Arthur Keen is such a hard-working good friend to the R.I.B.A. that we are loth to criticize him, but we do respectfully suggest that the letters of our Hon. Secretary should be accurate, whether the matter be Registration, Unification, or the Improvement Scheme carried out at the Marble Arch. Mr. Keen refers to the Report of the Committee, but it has made no Report. The facts, for Mr. Keen's information, are as follows:—

The Sub-Committee made a Report in April, this was considered by the Committee in May, and the following resolutions were passed:—

1. That the principle of Scheme A—namely, the bringing of all the Architects of the United Kingdom into membership of the R.I.B.A.—be adopted as the basis for unification.

2. That the matter be referred to the Sub-Committee to consider details and report to the Main Committee.

3. That the Committee recommend the Royal Institute to draft such alterations to its Charter and By-laws as may be necessary to comply with the principle of Scheme A, adopted this day by the Unification and Registration Committee, and to confer with the Council of the Society of Architects as to conditions of membership.

4. That six additional representatives of the Allied Societies be selected by the Chairman and Vice-Chairman from the members of the Main Committee to serve upon the Sub-Committee.

If Mr. Keen will kindly compare our previous letter with the above resolutions he will see it was based upon those conclusions.

Unification is practically impossible without first obtaining Registration. We must follow the example of the Dentists and pass a Registration Bill before we tamper with our constitution. We hope Mr. Arthur Keen agrees.

Yours obediently,

A. W. S. CROSS
(Vice-President).
H. D. SEARLES-WOOD
(Vice-President).
GEORGE HUBBARD (F.).
SYDNEY PERKS (F.).
DIGBY L. SOLOMON (A.).

"Stunts and Standards"

To the Editors of THE ARCHITECTS' JOURNAL.

SIRS,—Is not the article by Mr. Crossley Davies, in your current issue (July 6) slightly too severe on the R.I.B.A., and a little overdone in pessimism? It had been long the custom to deprecate the Institute's alleged inflexible conservatism. Now there seems to be a disposition to urge that it is going too fast and too far in the opposite direction. In effect, Mr. Crossley Davies accuses it of abandoning orthodoxy inasmuch as it is consorting with heretics. He will not, I think, find many to agree with him. It seems to be an unfair inference from the Institute's broad-minded policy in asking Mr. Fry to expound his peculiar views on art.

Let it be granted that to put a heretic into the pulpit is to profane the temple and to run the risk of contaminating the congregation. But what sort of temple is No. 9 Conduit Street? And are those who worship there likely to be misled by a casual lecture? It is not probable—is, indeed, hardly conceivable—that, delightful heresiarch as he is, Mr. Roger Fry made a single convert to his strange and wayward heresies, wide as was the publicity given them in the newspapers. Their net effect among architects would be to stimulate thought; among the laity, to awaken interest in the subject.

Very many of your readers will agree with me, I am sure, in repudiating Mr. Crossley Davies's view of the Institute's catholic choice of lecturers; and I am very serious in throwing out the suggestion that in arranging the next course the Institute should not only have the courage to stick to its policy of choosing lecturers who will make up a list that shall be "variable and mutable," and therefore attractive, but that this character would be intensified by the liberal inclusion of competent lady lecturers.

C. H. D.



MR. RALPH KNOTT, RECENTLY ELECTED F.R.I.B.A.



THE NEW LONDON COUNTY HALL AS IT WILL APPEAR FROM THE RIVER.
RALPH KNOTT, F.R.I.B.A., ARCHITECT, WITH W. E. RILEY, F.R.I.B.A., ARCHITECT TO THE L.C.C.

The New County Hall: Its Architect and Sculptures

As we announced last week, at the last meeting of the Council of the R.I.B.A. Mr. Ralph Knott was unanimously elected a Fellow of the Royal Institute. It is very gratifying that this distinction should be conferred upon Mr. Knott. It has been long overdue, for Mr. Knott stepped into the front rank of the profession more than thirteen years ago when, at the age of twenty-nine, and while still an assistant (in the office of Sir Aston Webb), he won the competition for the new London County Hall. At long last his great building (to be exact, three-quarters of it, the northern block yet having to be built), after many vicissitudes, is nearing completion. Already many of its multitudinous apartments are occupied, and the work of the Council is in full swing. A fully illustrated account of the building having been given in our issues for April 13 and 20 of this year, nothing further need be added at the present juncture, though readers will be interested to see the perspective view of the river front of the building as it will appear when completed, as well as the recent portrait of Mr. Knott, which we are able to publish in this issue.

A good deal of interest has been aroused by the sculpture groups which adorn the building (the work of Mr. Ernest Cole), and much facetious comment has been passed upon them. Ribald jests, however, have failed to disturb the equanimity of Mr. Cole, who is satisfied to describe his sculptures, briefly, as "decorative stone groups, with bronze details, the figures designed in Renaissance style, the general theme being "Labour." In this issue we reproduce photographic views of three of the principal groups. Mr. Cole provides the following descriptions: (1) "Two figures standing over the window mullions, suggesting cornucopias"; (2) "Two figures seated over window mullions holding decorative bronze groups on small stone globes"; (3) "Three figures crouching in a semicircle over the centre of the window pediment, supporting a large stone globe with a bronze band, decorated with panels in relief, and surmounted by a bronze group." The symbolism may not be very apparent, but the originality and extraordinary vigour of these remarkable groups is patent to the eye.

Wages in the Building Trade

The National Wages and Conditions Council for the Building Industry has further considered the reference to it of the notices pending for alterations of wages and conditions, and has come to the following further decision respecting the difference between the rates of Craftsmen's and Labourers' Wages:—

"That where the Craftsmen's rate on May 1, 1921, was over 2s. 2d. per hour the difference between the Craftsmen's and Labourers' rate on August 1 shall be 4d. per hour, and on September 1 5d. per hour.

"Where the rate was over 1s. 11½d. to 2s. 2d. the difference on August 1 shall be 4d., and on September 1 4½d. per hour.

"Where the rate was 1s. 10d. to 1s. 11½d. inclusive the difference shall be 4d.

"The sliding scale to operate from this basis, provided always that the rate paid to Labourers shall not be less that 75 per cent. of the Craftsmen's rate.

"And provided further, that should the operation of foregoing provisions create in any district an increase in wages the present Labourers' rate shall be maintained until the difference shall be effected under the operation of the sliding scale."

A. G. WHITE, }
R. COPOCK, } Joint Secretaries.



I.—SYMBOLICAL SCULPTURE GROUP ON THE NEW LONDON COUNTY HALL. ERNEST COLE, SCULPTOR.



2.—SYMBOLICAL SCULPTURE GROUP ON THE NEW LONDON COUNTY HALL. ERNEST COLE, SCULPTOR.

Competition News

Buckie War Memorial.

Adaptation of Cluny Hotel as War Memorial. Apply Mr. J. L. M. Naughton, Town Clerk. Closing date July 22.

Dunoon War Memorial.

War Memorial to cost £2,000. Apply Mr. J. V. Clery, Clydesdale Buildings. Closing date July 30.

Other Competitions.

For particulars of other competitions open—New Hospital Buildings, Cairo (October 3); North Wales Heroes Memorial (July 23); Wolverhampton War Memorial (August 13); Birmingham Hall of Memory (October); and New Park for Wandsworth (September 5)—see our issue for June 29.

Hillhead High School.

The competition for a new high school at Hillhead for the Education Authority of Glasgow has been won by Mr. E. G. Wylie, A.R.I.B.A., of Glasgow.

Halifax War Memorial Competition.

The Society of Architects has been unable to obtain a copy of the conditions of the above-named competition from the promoters, and the Council requests Members not to compete unless they accord in every respect with the Society's Competition Regulations. Any Member of the Society having a copy of the conditions of the competition is invited to submit it to the Secretary.

Willesden Hospital Competition Drawings.

The Council have lent the R.I.B.A. Galleries for an exhibition of the competition designs for the extension of the Willesden Hospital as Willesden's War Memorial. Mr. Edwin T. Hall, F.R.I.B.A., acted as assessor on the nomination of the President, and seven architects submitted designs. The premiums were awarded as follows:—*First*, Messrs. Greenaway and Newberry, £105; *Second*, Mr. A. Saxon Snell, £52 10s.; *Honorarium* of £20 each to Messrs. Forsyth and Maule, Messrs. Ashley and Newman, Mr. W. Marchment, Messrs. Murrell and Piggott, and Messrs. Newman and Newman. The drawings will be on view from he 11th to 18th July inclusive.

Bartlett School of Architecture Awards

The following awards have been mad in the Bartlett School of Architecture a University College, London :—

Lever Prizes—In Architecture : A. R Dent. In Town Planning : First, W Harding Thompson; Second, H. C Tasker.

Donaldson Silver Medal : A. G. Mac donald.

Herbert Batsford Prize : J. B. Cooper

Andrew Taylor Prizes—Second Yea Student : F. Jenkins. Third Year Stu dent : S. Hyde.

Ronald Jones Prizes—Renaissance F. Jenkins. Mediæval : C. P. J. Fahy.

Certificates in Architecture have bee obtained by Gwendolin M. Adshead H. G. Blizzard, G. T. Brown, R. J Bunce, W. C. Childs, V. G. Cogswell G. A. Crockett, E. E. Edmunds, C. P. J Fahy, G. H. Fielder, M. C. Glover, F Jenkins, J. L. Kelf, E. Kirby, A. L Knott, C. W. H. Law, H. Lewin, Bret G. Merrylees, R. J. H. Minty, S. L. Pal mer, P. N. Patker, L. F. Shroff, J. R. M Simpson, L. L. T. Sloot, E. R. Taylor Katharine M. Wallis, O.M. Welsh, T. J. R Winn, F. T. Winter.

Certificates in Town Planning hav been obtained by : H. A. Mealand, E. C Tasker, R. W. Vanes, R. B. Walker (with distinction).

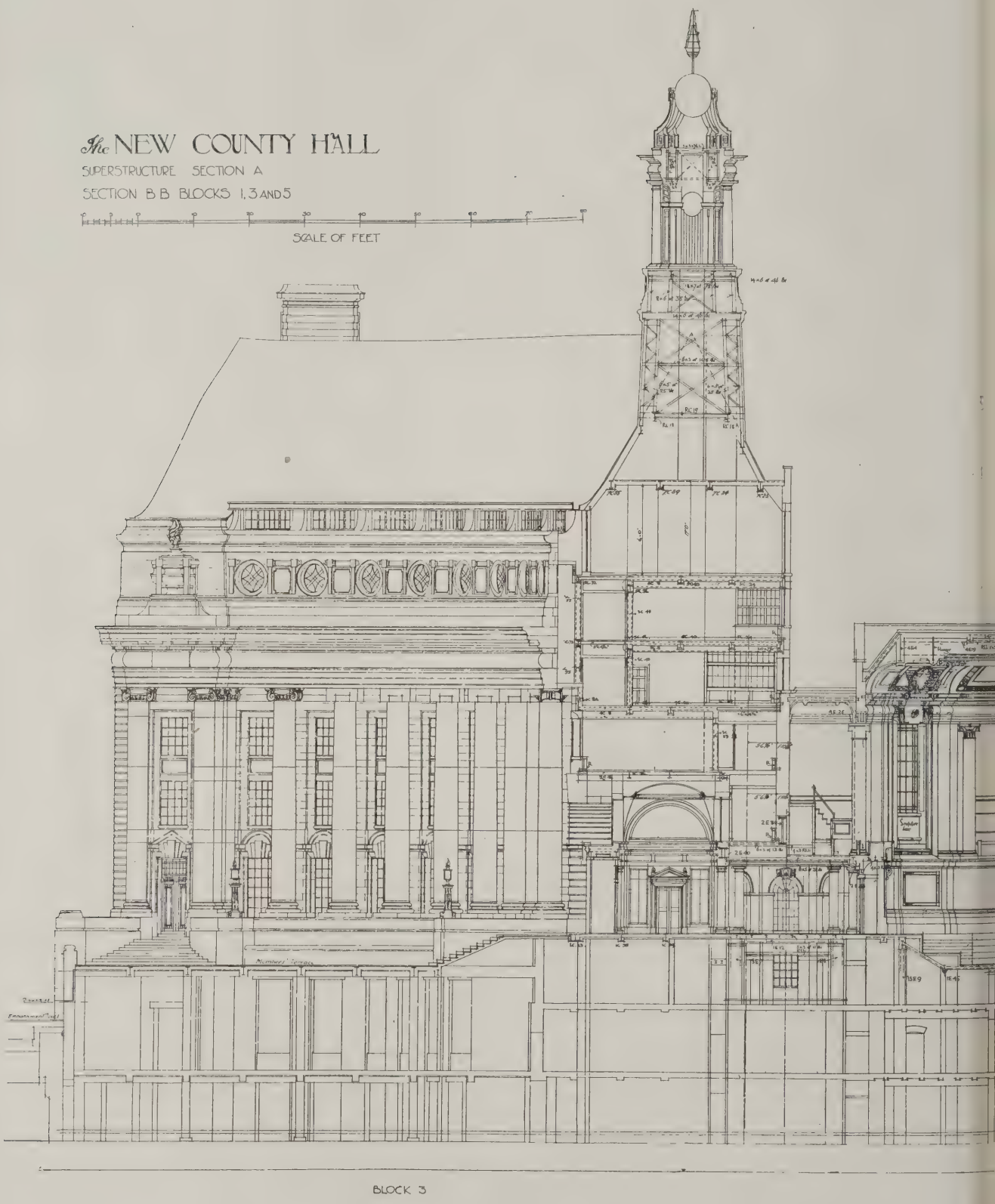


3.—SYMBOLICAL SCULPTURE GROUP ON THE NEW LONDON COUNTY HALL. ERNEST COLE, SCULPTOR.

UNIVERSITY OF ILLINOIS

Architects' Working Drawings. 39.—Th

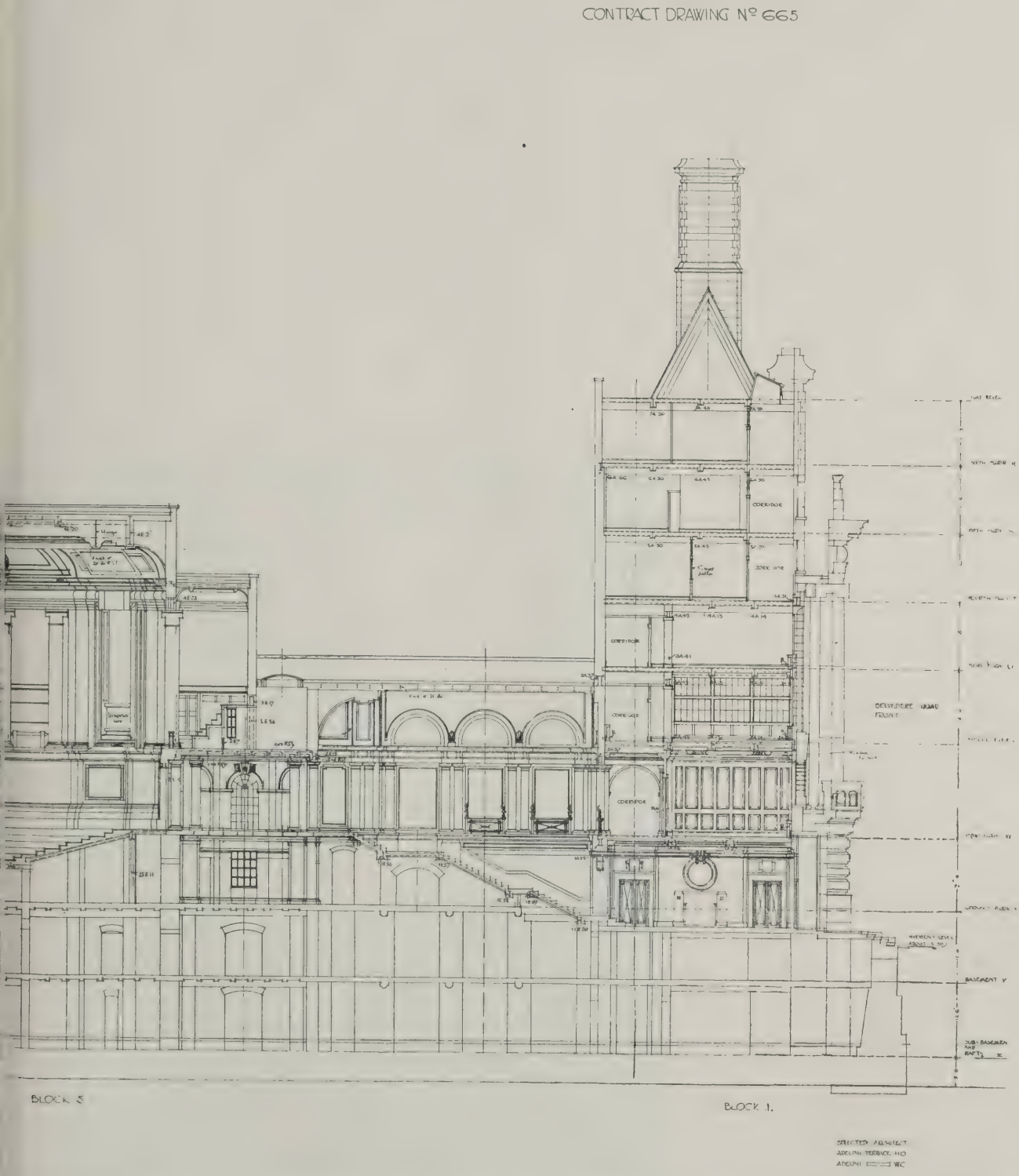
Ralph Knott, F.R.I.B.A., Architect, with W. E. Riley,



Apropos of the election of Mr. Ralph Knott to the Fellowship of the R.I.B.A., we show in this issue several interesting and hitho through the centre line of the building, shows the carved recess to the river front, the council chamber, and the gra

lw London County Hall: Cross Section

A., M.Inst.C.E., R.B.A., Official Architect to the L.C.C.



shed illustrations of the new London County Hall, which is now approaching completion. The above transverse section, taken with entrance from Belvedere Road. A full account of the building was given in our issues for April 13 and 20.

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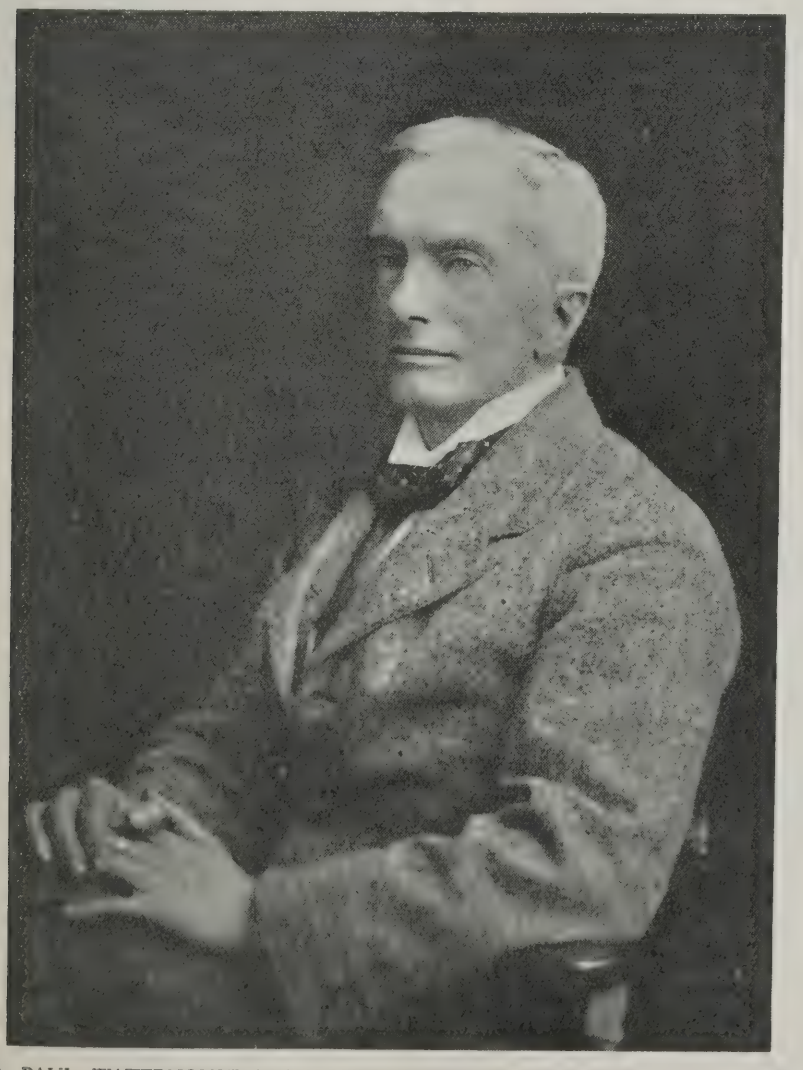
The New President of the R.I.B.A.

Mr. Paul Waterhouse, M.A., Oxon., F.S.A., the new President of the R.I.B.A., was born in Manchester in 1861, and is the son of the late Mr. Alfred Waterhouse, R.A., and of Elizabeth, the daughter of John Hodgkin, barrister-at-law, and sister of Thomas Hodgkin, the historian. Mr. Paul Waterhouse was educated at Eton, where he reached sixth form, and at Balliol College, Oxford, where he was captain (and cox) of the College Eight, and obtained honours degree (second class in Classics). He served his pupilage with his father, with whom for ten years he was partner. Mr. Alfred Waterhouse died in 1905, but was disabled by ill-health in 1901, so that from that date to the present time Mr. Paul Waterhouse has been in independent practice. He completed his father's work at Liverpool University, Girton College, University College Hospital, Royal Infirmary, Liverpool, St. Mary's Hospital, Manchester, Prudential Office, Holborn, and at many other places.

Of his independent works since the period of partnership the principal are the botany block and extensions of the chemical and library departments of the Universisty of Manchester; metallurgical, electric, arts, botany, and other blocks at the Leeds University; organic chemistry laboratory at the Oxford University; Prudential offices at Stockton, Stockport, Leicester, Aberdeen, Dunfermline, Grimsby, Darlington, and Middlesborough; additions for the National Provincial and Union Bank of England, Bishopsgate (now in progress); Refuge Assurance Company extensions at Manchester; new premises for Lloyds and National Provincial Foreign Bank at Paris and Brussels (now in progress); St. Francis Church, Hammerfield; various domestic cottage and church works at St. Andrews, Fife; the Tabernacle of the Blessed Sacrament at St. Mary Magdalene's, Osnaburgh Street; the Medical School of the University College Hospital, Gower Street; the Royal National Pension Fund for Nurses, Buckingham Street, Strand; The London Salvage Corps; and the Atlas Office, Birmingham. Mr. Waterhouse is a life Trustee of Sir John Soane's Museum, and has recently been appointed architect in conjunction with Mr. G. Hornblower of the new buildings of University College Hospital. He has written extensively on architectural subjects in periodicals, has frequently lectured on the same topics and on London problems, and has contributed a summary of the architectural history of Italy for Macmillan's guide book of Italy, and he has written many lines in the Dictionary of National Biography.

Mr. Waterhouse is Chairman of the Board of Architectural Education, and was for some time hon. secretary of the Literature Committee. He has also been a vice-president of the R.I.B.A., and a vice-president of the A.A., and won an additional prize in the old Associateship Exam.—being second to the Ashpitel prize-man of his year—and the Institute silver medal for essays. For many years Mr. Waterhouse was a performing member (tenor) of the Bach Choir and of the Magpie Madrigal Society, and he is a churchwarden, chairman of a parish council, and a Governor of the Newbury Grammar School.

In 1887 Mr. Waterhouse married Lucy Grace, the daughter of Sir Reginald Palgrave, K.C.B., and has one son, Michael Waterhouse, A.R.I.B.A. (whose practice is largely in conjunction with his father's), and two daughters.



MR. PAUL WATERHOUSE, M.A., F.S.A., THE NEW PRESIDENT OF THE R.I.B.A.

Enquiries Answered

Stains in Panelling.

F. B. writes: "Some time ago I had the paint removed from the oak panelling in a room of an old country house, and polish was substituted. Part of the panelling has now gone 'milky' under the polish. The room, which is situated over a cellar, appears to be dry. Please give me a remedy."

—The only remedy is to remove all the polish down to the wood with a paint remover free from alkali and made principally from acetone. This may be used without its being necessary to apply any acid after the polish is removed, the surface being simply wiped down with a piece of waste dipped in turpentine on the white spirit. Care should be taken to see that the surface is quite dry before re-polishing.

Rough Test for Sand.

P. J. writes: "Can you give me a rough-and-ready method of testing the presence of clayey or earthy matter in sand?"

—Take a small quantity of the sand and rub it between the palms of the hands. The clayey matter sticks to the hands, the thickness of the clay adhering being a guide to the quantity of clayey matter in the sand. A better test is to take a glass measuring-cylinder and fill it half full with sand, then add water until the sand is saturated and the water rises in the glass well clear of the sand. Stir the mixture thoroughly, then allow it to settle, when the coarser or heavier grains of matter will be seen at the bottom of the glass, the layers of sand gradually getting finer until at the top a layer of mud is seen, and above that clean water. The proportion of the various materials of which the sand is composed can be exactly estimated by this method.

Registration.

"Provincial Architect" writes: "As a practising architect who is not a member of any of the architectural organizations, I should be interested to learn how my position will be affected by the Registration proposals."

—The answer to your question will be found in the papers by Major Barnes, M.P., and Mr. John W. Simpson, PP.R.I.B.A., which are published in this issue.

Avon House, London

The new Avon House, Euston Road, of which a number of illustrations are given in this issue, has been designed to meet the requirements of the Avon India Rubber Company, Ltd., by Mr. Robert Angell, Licentiate R.I.B.A. The site has frontages to Euston Road (main entrance), Fitzroy Street and Warren Street (rear), and lies between Great Portland Street and Tottenham Court Road.

The following is a brief résumé of the accommodation :—

Basement.—Solid and Pneumatic tyre stocks, packing and dispatch rooms, etc.

Ground floor.—Solid tyre fitting shop, (equipped with latest type hydraulic press, 16 in. ram), free air station (pneumatic tyres inflated by rapid electric pump); cash sales and trade department (for wholesale supplies of tyres, sundries, etc.); main entrance hall (from Euston Road); goods entrance (Warren Street).

First floor.—Reception hall and general inquiries, management offices, solid tyre department, export and advertising departments.

Second floor.—Counting house, general order department, etc.

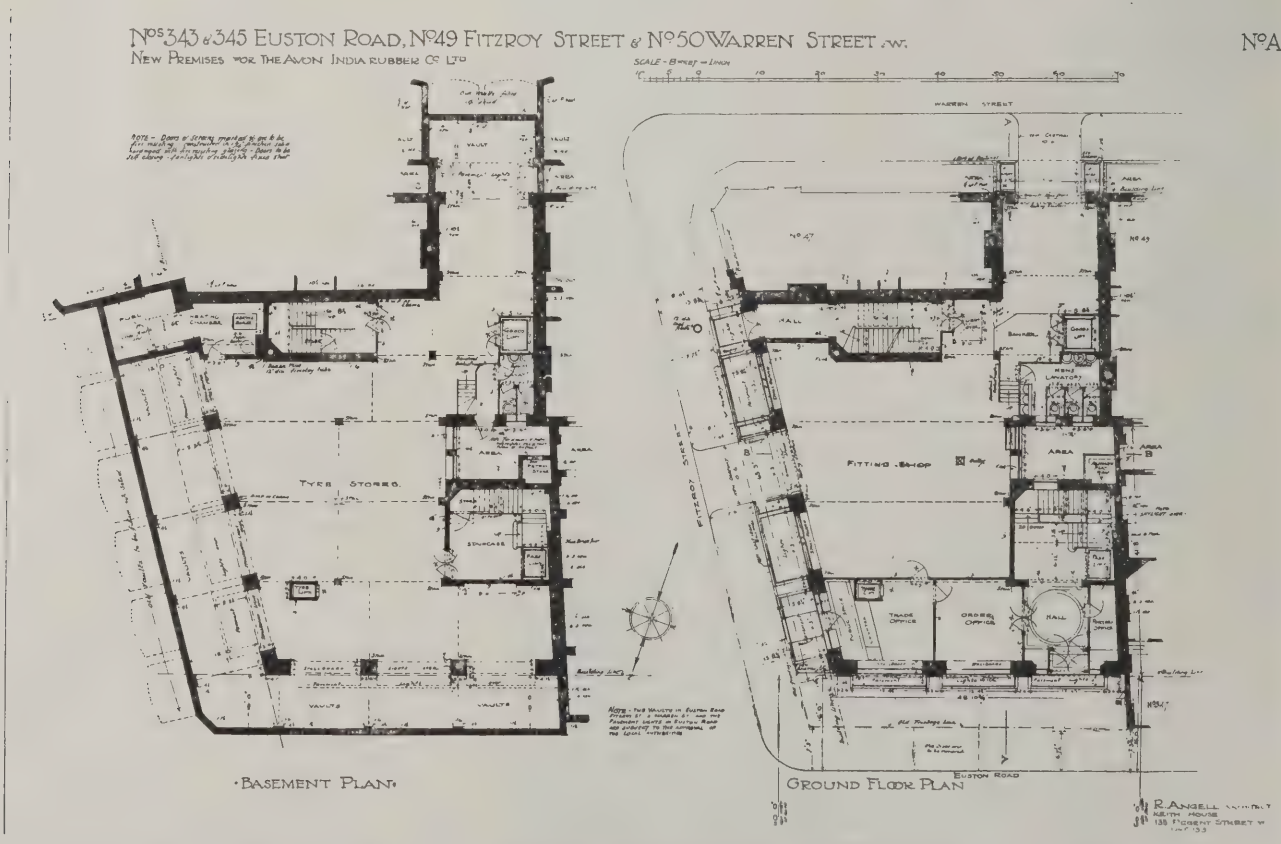
Third and fourth floors.—Stocks of tyre sundries, golf balls, etc.

The building, which has six floors, is of steel-frame construction faced with Portland stone.

Messrs. Higgs & Hill, Ltd. of Crown Works, Lambeth, were the general contractors; the following sub-contractors also being associated with the work: Messrs. H. Young & Co., Ltd. (steel construction); Messrs. Malcolm Macleod & Co., Ltd. (reinforced stairs); Messrs. H. Cullum & Co., Ltd. (reinforced floors);



DETAIL OF PRINCIPAL ENTRANCE.



AVON HOUSE, EUSTON ROAD, LONDON. ROBERT ANGELL, LICENTIATE R.I.B.A., ARCHITECT.

Current Architecture. 95.—Avon House, Euston Road, London

Robert Angell, Licentiate R.I.B.A., Architect



This building has been designed to suit the requirements of the Avon India Rubber Co., Ltd. Architecturally restrained, it is conceived on essentially modern lines, special attention having been paid to the fenestration, which is adequate, simple, and effective. The building is of steel-frame construction, with a facing of Portland stone.

LIBRARY
OF THE
UNIVERSITY OF ILLINOIS



WAITING ROOM.



STAIRCASE AND LIFT ENCLOSURE.

AVON HOUSE, EUSTON ROAD, LONDON. ROBERT ANGELL, LICENTIATE R.I.B.A., ARCHITECT.

The Crittall Mfg. Co., Ltd. (steel sashes); The British Luxfer Co., Ltd. (pavement lights and lantern lights); Messrs. Marryat & Scott, Ltd. (electric lifts); Messrs. J. Jeffreys & Co. (heating, hot water, and pumps); Messrs. Salter, Edwards & Co. (asphalte); Messrs. John Daymond & Co. (carving); Messrs. S. W. Francis & Co. (steel rolling shutters); Messrs. Jos. F. Ebner (oak block flooring, jointless composition flooring); Messrs. Mather and Platt (sprinkler system and hydrant system); Messrs. Tyler and Freeman (electric light installation); Messrs. Blunt & Wray, Ltd. (lift enclosure and balustrade, bronze lettering and cast-iron railings); Messrs. Herbert Morris, Ltd. (runway); Messrs. Jos. F. Ebner (marble work); Messrs. Higgs & Hill, Ltd. (structural decoration and plaster work, oak panelling, etc.); Messrs. Geo. Wright (London), Ltd. (grates); Messrs. Tylors (Water and Sanitary), Ltd. (sanitary fittings); Messrs. Yannedis & Co. (door furniture); Messrs. Thomas Warren & Co. (hydraulic tyre press); The "Lamson" Co. (pneumatic tube installation); The South-Western Stone Co., Ltd. (masonry).

In addition to the oak block flooring all the marble steps and risers, marble tiles to entrance hall, marble staircase, the terazzo paving, and the "Ebnerite" jointless flooring to upper floors, were fixed and laid by Messrs. Jos. F. Ebner.

Clearance of Unhealthy Areas

The Committee appointed by the Minister of Health to consider and advise on the principles to be followed in dealing with unhealthy areas has presented its final report.* An Interim Report was published last year. Mr. Neville Chamberlain, M.P., was Chairman of the Committee, and the full terms of reference included the consideration of schemes of reconstruction as distinct from clearance, and the use of the site cleared for re-housing, factory, or other purposes.

The Committee reports that clearance and reconstruction on any large scale can hardly be attempted until the existing shortage of houses has been substantially reduced. Such clearance and reconstruction should be in accordance with a prepared plan dealing, not only with the reconstructed area, but with the whole town and district, and taking into account the proper distribution of housing, commercial, and industrial buildings, facilities for transport, etc.

Pending reconstruction, it is suggested that unhealthy areas might be materially improved if they were purchased by local authorities, such purchase to be compulsory, and the houses altered, repaired, and managed on the Octavia Hill system. Where dense overcrowding exists, as in the London area, it is recommended that the future demolition of houses, to make way for factories, should be checked, and that the building of garden cities in the neighbourhood should be encouraged.

It is proposed that where overcrowding exists (as in the London area) local authorities should, on the representation of the medical officer of health, have power to declare any area "a congested area," and thereafter to prohibit the demolition of houses or the erection of buildings other than dwelling houses in those areas without a licence from the local authority.

The garden city movement, it is recommended, should be encouraged by State assistance in the early stages, such assistance to take the form of a loan secured as a first charge upon the land developed as a garden city.

It is proposed that some competent person or persons should at once be authorized to prepare a plan for the reconstruction of London and the surrounding districts, and that an inquiry be at once instituted into the nature, scope, and functions of a new Authority or combination of Authorities to give statutory effect to such a plan.

This is an excellent move, and has been long overdue. Unfortunately, the encroachment of business premises upon residential areas has gone so far, especially in the environs of London, that the amenities of whole neighbourhoods are already completely spoiled.

The Report makes special reference to the difficulties and problems of Birmingham, Leeds, Liverpool, and South Wales, and includes a valuable appendix, by the Secretary to the Committee, Mr. Herbert Jennings, entitled "Facts concerning Densities," having reference to the County of London.

* Unhealthy Areas Committee—Second and Final Report. H.M. Stationery Office. Price 4d. net.

Bole Hall, Warwickshire

This week we reproduce a photograph and a measured drawing of Bole Hall, near Tamworth, Warwickshire. The house is built of red brickwork laid in Flemish bond, with white mortar joints, and has stone dressings, the whole being in excellent condition. Nine courses of brickwork measure 2 ft. in height. The arches to the windows are constructed of rubbed and gauged red bricks, four courses deep to the ground floor, and three courses to the first floor windows.

The stonework is painted, and comprises plinth—except to the extreme ends, which is of brickwork; dressings around entrance doorway; plinth, base, cap, architrave, and frieze of pilaster; cornice; coping to parapet wall; string above the ground-floor windows, and keyblocks to the windows.

About twenty years ago the roof was re-covered with dark blue tiles and ridge. The woodwork of the windows is painted white. A path 6 ft. wide, constructed of squared stone flags in five courses of random sizes, leads from the iron gate to the front entrance. This path is 31 ft. long. In setting out the plan of the front wall the unit of 2 ft. is noticeable. For the accompanying measured drawing we are indebted to Mr. S. Chesney.



BOLE HALL, WARWICKSHIRE.

Book Notice

Paint and Colour Mixing

"Jennings on Paint and Colour Mixing" having now reached a sixth edition, has become a standard work on the subject, and nothing further need be said in commendation than that beyond question its excellent quality has earned this high position. Seventeen coloured plates, comprising about twenty times as many colours, tints, or wood-preserving and other "stains," form an extremely useful feature of the book, which, Mr. Jennings states in his preface, has "appealed very strongly to master painters," who have, one can easily understand, found it most useful to show to their customers, in order to ascertain their "tastes" in colours. In the text also there are several illustrations of implements and appliances used in the house-painter's trade; and, by the way, one could have wished for a list of illustrations. True, there is a very good index at the end, but this does not quite meet the requirement. These coloured plates seem to have been supplied, as a rule, by the manufacturers of ready-mixed paints, which are now in such general use that plates showing any particular paint required, and where to obtain it, are of very special value. Not that these resources entirely supersede paint-mixing by the painter and decorator, who, indeed, has developed that art —for art it is, in a manner of speaking— to a very fine point, and who will therefore be the more competent to recognize the technical value of the practical instructions in it with which the book is plentifully provided. Almost everything that a house-painter should know is contained in this valuable and practical little manual, but we miss some specific reference to the hygiene of the craft. When, in a future edition, Mr. Jennings supplies a useful and humane chapter on this really vital subject, he will not omit to establish or dispose the turpitude of turps and the comparative innocence of the lead base. His book, however, thoroughly deserves the place it holds as a standard manual for the house-painter.

Paint and Colour Mixing. A Practical Handbook for Painters, Decorators, Paint Manufacturers, Artists, and all who have to mix colours. By Arthur Seymour Jennings, Fellow of the Institute of British Decorators, etc. Sixth Edition. London: E. & F. N. Spon, Ltd., 57 Haymarket, S.W. Price 12s. 6d. net.

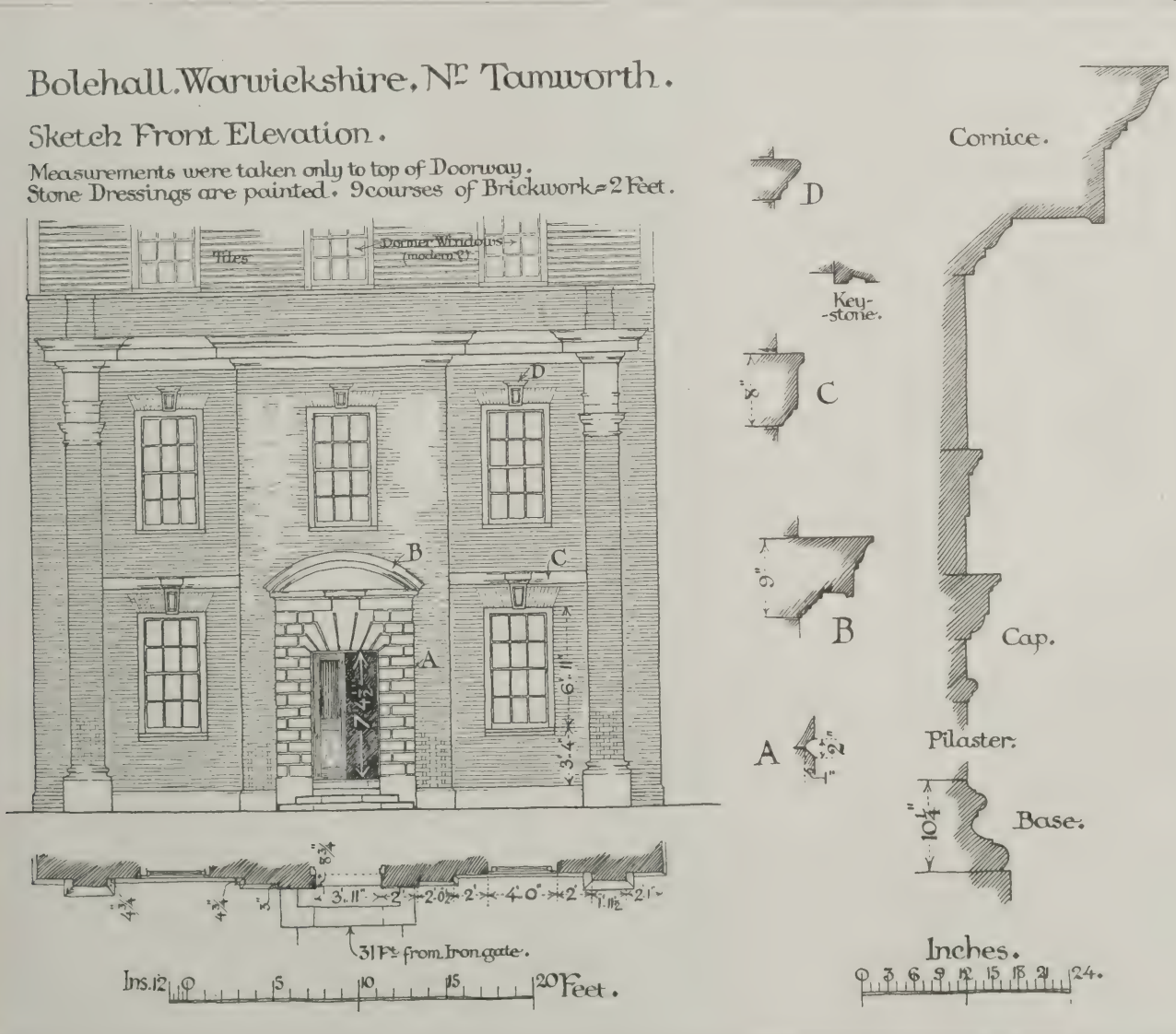
Publication Received

"The Modern Painter and Decorator." By Arthur Seymour Jennings and Guy Cadogan Rothery. Price 22s. 6d. net. The Caxton Publishing Company, Ltd., Clun House, Surrey Street, W.C.2.

Hammersmith School of Arts and Crafts

There was a considerable number of visitors to the exhibition of students' work at the Hammersmith School of Arts and Crafts. The school has four floors, and the class rooms on each floor were filled with the work carried out by the students in the class room in which the exhibits were displayed. The exhibition showed evidence of careful training. During the past session the school has had a record number of students, and it has also been a training centre for a number of ex-Service men.

At the prize distribution the chair was occupied by Mr. F. R. Anderton, vice-chairman of the London County Council, who introduced to the large number of teachers, students, and friends present, Professor R. Anning Bell, A.R.A., who distributed the prizes. After the distribution Professor Anning Bell gave a short address to the students on "Artists and their Individuality." Votes of thanks were proposed to Professor Anning Bell by the chairman, and seconded by Mr. B. Puckle, and to Mr. F. R. Anderton, by Mr. J. Glasier, seconded by Mr. J. P. Willmott.



BOLE HALL, NEAR TAMWORTH, WARWICKSHIRE. SKETCH OF FRONT ELEVATION.
MEASURED AND DRAWN BY S. CHESNEY.

Co-Partnership Exhibition

It has been decided, on the request of the Labour Co-partnership Association, of which the Right Hon. Lord Robert Cecil, K.C., M.P., and Mr. W. A. Appleton, C.B.E. (Secretary, General Federation of Trades Unions) are Presidents, to organize at the Crystal Palace an exhibition of manufactures produced under co-partnership and profit-sharing conditions or welfare developments.

The exhibition will enable the public to appreciate the advance made of recent years in mutual arrangements to promote industrial peace between employers and employed; the firms practising some form of welfare work to compare results and learn how far they can advantageously add new features to or make improvements in their systems, and the workers to come together for mutual converse and good fellowship. Festival days will be arranged at which all kinds of healthful sports, music, choral singing, and other enjoyable features will be promoted.

The exhibition will open on September 1 and close on October 22, 1921. The Labour Co-partnership Association and other societies interested in promoting the welfare of the workers will organize meetings, conferences, and congresses continuously, in which eminent public men and leaders of industry will take part. Further particulars may be obtained from Mr. Henry James Buckland, General Manager, Crystal Palace.

Liverpool University Examination Results

Following are the results of the June Examinations in Architecture of the University of Liverpool:—

FACULTY OF ARTS. DEGREE OF B.ARCH.

First Examination.

ASTBURY, F. N.
BARTON, H. L.
DEWSNUP, Sarah J.
MINOPRIO, C. A.
PETERS, H. A.
SHAW, C. C.
WILLS, T. T.

Second Examination.

ALLINSON, A.
ASHBURNER, E. H.
BLOODWORTH, C. T.
BRIDGWATER, D. L.
DONALDSON, R. W.
GORRIE, J. C.
JENKINS, W. V.
MILLER, J. H.
OWEN, J. H. L.
PHILLIPS, H. G.
SILCOCK, H. S.
TURNER, R. H.

Third Examination.

ALLEN, J. S.
BILLIMORIA, H. F.
CHATTERLEY, A. O.
CHISHOLM, A. McL.
EDWARDS, W. B.
FORSHAW, J. H.
FRY, E. M.
HASWELL, P. B.
HIGHAM, E. H. H.
HUTTON, C. H.
JOHN, L.
JONES, H. H. B.
KNIGHT, C. R.
LEWIS, G. S.
MAHON, S. E.
MARTIN, E. W.
OWEN, G. L.
PARRY-JONES, J.
PRICHARD, L. A. G.
PRITCHARD, H. W.
RAAFAT, M.
ROBERTS, H.
VALLIS, R. W. H.
WILLIAMS, E.
WILLIAMS, Howard.

Fourth Examination. With Honours in Architectural Design.

ARTHUR, E. R.
CHECKLEY, G.
JONES, I. R.
WELSH, S.

FACULTY OF ARTS. DIPLOMA IN ARCHITECTURE.

First Examination.

ASPLAND, A.
CAUL, J. W.
COWLEY, A. D. R.
DEAN, R. E. S.
DIXON, Doris E.
FITZGERALD, Beatrice M.
FOX, H. L.
ROUSHDY, M.
SILCOCK, Frances T.
THEARLE, H.
THOMAS, G. I.
WALL, Maud A. M.
WILKINSON, Sheelah A.
ZWINGER, L. G.

Second Examination.

BRADSHAW, D.
DEBERT, Doris D.
DOUGLAS, G. C.
EDWARDS, C. G.
EHRHARDT, G. E. S.
FURBUR, J. R.
HOWITT, L. C.
NUTTALL, O. H. H.
OVERSBY, Doris.
PRIESTLY, C. J.
TAYLOR, J. M.
EL WAHHABY, I. I.

Third Examination.

BLACKETT, J.
BRIDGE, E. E.
BROOKE, D.
CORNES, E. H.
CROWTHER, J. H.
FRYER, E.
HIRST, H.
JONES, R. H.
JONES, T. E.
LINDLEY, C. J. W.
MUSKER, Doris.
SIMMS, H. G.
TOWNSEND, A. C.
WILLIAMS, Harry.
WOOLLEY, E. G.
YOXALL, T.

Fourth Examinations. With Distinction in Architectural Design.

ELSWORTH, W.

CERTIFICATE IN ARCHITECTURE.

New Regulations.

Class I.

ALLEN, J. S.
BILLIMORIA, H. F.
BLACKETT, J.
BRIDGE, E. E.
BROOKE, D.
CHATTERLEY, A. O.
CHISHOLM, A. M.
CORNES, E. H.
CROWTHER, J. H.
EDWARDS, W. B.
FORSHAW, J. H.
FRY, E. M.
FRYER, E.
HASWELL, P. B.
HIGHAM, E. H. H.
HIRST, H.
HUTTON, C. H.
JOHN, L.
JONES, H. H. B.
JONES, I. R.
JONES, R. H.
JONES, T. E.
KNIGHT, C. R.
LEWIS, G. S.
LINDLEY, C. J. W.
MAHON, S. E.
MARTIN, E. W.
MUSKER, Doris.
OWEN, G. L.
PARRY-JONES, J.
PRICHARD, L. A. G.
PRITCHARD, H. W.
RAAFAT, M.
ROBERTS, H.
SIMMS, H. G.
TOWNSEND, A. C.
VALLIS, R. W. H.
WILLIAMS, E.
WILLIAMS, Harry.
WILLIAMS, Howard.
WOOLLEY, E. G.
YOXALL, T.

FACULTY OF ARTS. DEGREE OF B.ARCH.

Old Regulations. Final Examination.

LAKSMINARASAPPA, S. H.

DIPLOMA IN ARCHITECTURE.

Old Regulations.

BUTLER, B.

DIPLOMA IN CIVIC DESIGN.

BUTLER, B.
JONES, R. D.

CERTIFICATE IN ARCHITECTURE.

Old Regulations. Class I.

BEESTON, W.
GREENFIELD, W. T.
JONES, W. R.
LEWIS, D. J.
NEWTON, E. A.
SALISBURY, T.
SMITH, H. E.
VELARDE, F.
WESKER, S. E. E.

Class II.

AZURDIA, C. E.
FISHER, M.
HAVERS, R. B.
HOLT, R. C.

The Royal Commission on Fire Protection

The appointment of a Royal Commission on Fire Protection has received less notice from architects than the subject deserves, especially as it is proposed to inquire into the sufficiency or otherwise of existing legislation on the matter. So far as the Metropolis is concerned it will probably be considered that the London County Council have all the powers that can be desired. The most far-reaching Act on the subject is the London Building Acts (Amendment) Act 1905, and it should not be unworthy of the Commission's investigation as to whether requirements made under that Act, under section 9, which deals with old buildings, could not in practice be modified. There are very few requirements as regards means of escape in case of fire in provincial building codes, and these could very well be strengthened. There is also a feeling amongst travelling theatrical companies that some of the older theatres in the provinces are by no means safe in case of fire, and this is a case where the law might very well be strengthened if the Commission should find it inadequate.



MR. C. S. JAGGER

(whose successful design for the Royal Artillery War Memorial was illustrated in our last issue).

The Architectural Association Prize-Giving

There was a pleasant function at the Architectural Association last Friday, when the annual distribution of prizes took place, and an interesting exhibition of students' work, which will remain open until July 22nd, was on view.

The President of the Association, Mr. W. G. Newton, opened the proceedings with a brief résumé of the year's progress, important in the history of the school as the first normal working year since the war. The results, Mr. Newton said, were a tribute to the work of the Director (Mr. Robert Atkinson), the Principal (Mr. H. M. Robertson), and the rest of the very capable and devoted staff. Reviewing the events of the last twelve months the President referred with pardonable pride to the triumphs achieved by the Association, which had carried off the Rome Scholarship, the Jarvis, the Tite Prize, and the Victory Scholarship given by the Society of Architects. He also pointed out that the Board of Architectural Education had extended exemption from their final examination to members of schools of sufficiently high standard, of which their own was one of the first two to be chosen. It was, he said, the only school run by architects for architects, who sacrificed both time and money to produce future professional rivals. Finally, quoting the example of Manchester, Mr. Newton dwelt on the importance of interesting builders in architectural education, and referred to the generous gift of Sir Henry Holloway, who proposed to endow scholarships at the A.A. to the extent of £5,000.

Mr. Ernest Newton, addressing the students, laid stress on the many advantages enjoyed by students of to-day, who by working together in a community had endless opportunities of discussing present and future problems with men of diverse gifts and views. It might be possible for many students, on completion of their school course, to spend a year on a big building, working with a good foreman, and this would be an invaluable experience. Architects of the last generation had had in some cases the direct inspiration of the giants under whom they had served their time, and had worked in an atmosphere of actual building problems; but many less fortunate had found their apprenticeship insufficient to equip them for the difficulties of their art.

Much, therefore, would be expected of present-day students by the older men who took a keen interest in their progress, and the speaker felt sure they would not be disappointed. Prizes were then awarded, and a vote of thanks was proposed by Mr. Robert Atkinson and seconded by Mr. H. M. Robertson.

SCHOLARSHIPS AND PRIZES.

1921.

PUBLIC SCHOOL ENTRANCE SCHOLARSHIP.

Value, £63, R. T. Westenday, *Charterhouse.*

OPEN ENTRANCE SCHOLARSHIP.

Value £63, W. E. Palmer, *Royal Masonic School.*

A.A. ESSAY PRIZE.

Open to all Students, value, £10 10s., Miss I. M. Chambers.

FIRST YEAR COURSE.

First Prize, "Howard Colls" Travelling Studentship, value £15 15s., A. E. Cameron.
Second Prize, Books, value £5 5s., R. F. Orfeur.
Art Subjects, value £3 3s., R. F. Orfeur.
General Progress, Books, value £2 2s., E. Walmsley Lewis.
Scholarship tenable for one year in Second Year Course, value £63, L. J. Young.

SECOND YEAR COURSE.

First Prize, A.A. Travelling Studentship, value £26 5s., R. E. Enthoven.
Second Prize, Books, value £10 10s., Hon. H. A. Pakington.
Art Subjects, Books, value £5 5s., R. E. Enthoven.
General Progress, Books, value £3 3s., A. S. Knott.
Scholarship tenable for one year in Third Year Course, value £63, L. R. Hiscock.

THIRD YEAR COURSE.

First Prize, "Henry Florence" Travelling Studentship, value £50, J. C. Shepherd.
Second Prize, Books, value £21, C. G. C. Hyslop.
Third Prize, Books, value £15 15s., C. S. White.
General Progress, Books, value £5 5s., M. R. H. Harris.
"Henry Jarvis" Scholarship, given by R.I.B.A., value £50, E. U. Channon.
"Alec Stanhope Forbes" Prize for best colour work during year, Books, value £5, K. D. P. Murray.
Scholarship tenable for one year in Fourth Year Graduate Course, value £63, D. Petrovitch.

FOURTH YEAR COURSE.

Design, First Prize, value £5 5s., Miss E. G. Cooke.
Second Prize, value £3 3s., W. Percik.
Construction, value £5 5s., N. C. Mackey.
Colour, value £3 3s., Cecil Smith.

FIFTH YEAR COURSE.

Design, value £5 5s., Stanley Natusch.
Town Planning, First Prize, value £5 5s., Stanley Natusch.
Second Prize, value £3 3s., C. M. Masters.

A.A. DIPLOMAS AWARDED TO
Stanley Natusch. J. H. White.
Bernard George.

Trade and Craft

"Installation News."

No. 7 (July) of the new series of "Installation News" is full of useful information. A contribution of considerable value deals with the earthing of works and factory installations. The majority of the remaining articles are also of a more or less technical nature, with the possible exception of that urging the immediate stimulation of present and every-day thinking. On the front cover is a design incorporating the coats-of-arms of nearly all the industrial centres of Great Britain which possess a branch or Unit of the Simplex Organization. "Installation News" is edited by S. Alexander, illustrated by S. Everiss, and published by Messrs. Simplex Conduits Ltd., of Garrison Lane, Birmingham—a company that has been in existence for almost a quarter of a century.

Coming Events

Thursday, July 14.

Architects and Surveyors Assistants' Professional Union. — Annual general meeting of the Metropolitan Branch at Caxton Hall, Westminster.

Saturday, July 16.

R.I.B.A. visit to the William Whiteley village. For particulars see page 62.

July 13–July 22.

Westminster Electric Supply Corporation Ltd.—Midsummer Exhibition of Electrical Washing Machines, Dish Washing Machines, Sewing Machines, Domestic Irons, Vacuum Sweepers, Fans, Polishers and Grinders, Curling Iron Heaters, Day Colour Lamps and Flood Lamps, at 6 Eccleston Place, Belgravia, S.W.1. 11 a.m. and 4 p.m. (Saturdays excepted).

Thursday, July 14.

Royal Society of Arts. — "Paints, Painting and Painters, with reference to Technical Problems, Public Interests, and Health." By Professor Henry E. Armstrong, Ph.D., LL.D., D.Sc., F.R.S., and A. C. Klein. 8 p.m.

R.I.B.A. & Housing Fees

The question of altering the Scale of Professional Charges to bring it into accord with Memoranda Nos. 31, 51D, and 52 of the Ministry of Health has been considered at a special general meeting of the R.I.B.A., held under the chairmanship of Mr. H. V. Lanchester. The terms of these memoranda had been approved by the Council of the R.I.B.A. and the Ministry of Health, and were presented for consideration by the general body. Memoranda Nos. 51D and 52 were referred to in our issues for June 15 and 22, and relate to the new scale of fees to be paid to architects in private practice for the preparation of plans in connection with State-aided housing schemes which are abandoned after approval by the Minister of Health.

The chairman moved the following resolutions :—

1. "That Clause 9 of the Scale of Professional Charges be altered to read as follows : 'In the case of housing schemes and laying out estates special arrangements may be required in exceptional circumstances, but for ordinary purposes the scales of fees are the same as those set out in the Ministry of Health's General Housing Memoranda, No. 31, No. 51D, and No. 52.'

2. "That the Ministry of Health's General Housing Memoranda, No. 31, No. 51D, and No. 52, setting out the fees payable to architects in connection with State-aided housing schemes, as agreed with the Ministry of Health by the R.I.B.A. and the Society of Architects, be incorporated as an Appendix to the Scale of Professional Charges."

An amendment that the matter be referred back, moved by Mr. Herbert Welsh, seconded by Mr. W. G. Watkins, was lost, and the following amendment, proposed by Mr. Sydney Perks, was carried unanimously :—

"That this general meeting of the Royal Institute of British Architects declines to alter the R.I.B.A. Scale of Charges for Housing Work by approving of Memoranda 51D and 52, and calls on the Council of the R.I.B.A. to repudiate the statement that the R.I.B.A. has agreed to them."

The Week's News

Concrete Houses.

Newton Abbot Urban Council has resolved to invite tenders for building forty-eight concrete and six brick houses.

Newark's New Sewerage Scheme.

The T.C. have decided to engage Messrs. W. H. Radford & Son of Nottingham, at a fee of 100 guineas, to report on the sewers and the sewage disposal.

New Hotel for Blackhall.

Plans have been passed by the Easington R.D.C. for a new hotel at Blackhall for the Durham and North Yorkshire Public House Trust Company.

Scunthorpe Housing.

For housing purposes, permission to borrow £180,000 has been granted to Scunthorpe and Frodingham U.D.C. by the Health Ministry.

Easter Ross Hospital Scheme.

A new county hospital scheme is proposed necessitating the purchase of the former naval hospital at Invergordon for the sum of £25,540, and the erection of new buildings and stores costing over £6,000.

New Factory for South Africa.

A textile factory is to be erected at Harrismith by the National Wool Industry of South Africa, Ltd. Three representatives of the company are in Europe for the purpose of purchasing machinery and engaging a technical staff.

Big Tottenham Scheme.

Tottenham U.D.C. has approved a scheme for building a promenade along the banks of the River Lea at Tottenham Marshes, constructing a boating and swimming lake and a band-stand, and turning marsh land into playing-fields. The cost will be £80,000.

Housing Schemes in Edinburgh.

Mr. Horsburgh Campbell, Director of Housing, in his monthly report on Edinburgh housing, states that the number of houses so far contracted for under the various corporation schemes is 1,177, of which 941 have been actually commenced or have been completed.

Huddersfield War Memorial.

Sir Charles Nicholson's design for the Huddersfield war memorial, to be erected on the terrace in Greenhead Park, has been approved by the sub-committee. It is to be a classical column of Victory surmounted by a sacrificial cross of metal, and the total height will be 100 ft.

"Direct" Houses for Manchester.

Manchester Housing Committee propose to erect another thirty houses by direct labour. Owing to the increased cost of labour and materials the first hundred built by direct labour will exceed the estimated cost of £900 apiece, but the additional thirty houses are not expected to exceed that amount.

Folkestone Health Exhibition Awards.

At the Folkestone Health Exhibition, The London Warming Co., Ltd., of Newman Street, Oxford Street, W., were awarded three prize medals for their only three exhibits, viz.: A silver medal for their "Kooksjoie" anthracite range; a silver medal for their "Wifesjoie" one-ring gas-cooker; and a bronze medal for their new combination hot and cold and overflow fitting for baths.

Spa Casino Reconstruction.

Contracts have been awarded to certain Belgian firms for the following work in connection with the reconstruction of the Casino at Spa:—paintings, ironmongery, marble work, flooring, heating, paint and decoration, glass and window panes, woodwork, tiles and paving material. A list of the firms who have secured contracts may be obtained by United Kingdom manufacturers and exporters interested, on application to the Department of Overseas Trade, 35 Old Queen Street, Westminster, S.W.1 quoting 10583–FW–PN.

York War Memorials.

The York War Memorial Committee will submit to the York City Council, with a recommendation for its adoption, a design for a monument which has been prepared by Sir Edwin Lutyens, R.A. Sir Edwin's proposal is the Great War Stone, with the inscription, "Their name liveth for evermore," as is being erected throughout our cemeteries abroad—carried on a great podium, which will have wreaths on its ends, and the Arms of York on its face, with the dedication: "To the brave men of York City, 1914–1919." The site selected is the rampart between Lendal Bridge and the archway between Rougier Street and Leeman Road.

Housing Progress in Scotland.

The following figures show the progress made in State-aided housing schemes up to 15th June, 1921:—permanent houses completed, 1,844; temporary houses completed, 502; reconstructed houses, 67; houses built under the private subsidy scheme, 506. Total number of houses completed, 2,919. In addition there are 11,842 houses, of which 1,655 are under construction at present, being built by private persons under the private subsidy scheme. The total amount of grant paid by the Scottish Board of Health in respect of the 506 houses which have been built under the private subsidy scheme is £123,273 6s. 8d.

An Old Sussex Inn.

An extremely interesting article appears in the June issue of "The Trust Review and Tourist Guide," from the pen of Mr. Walter H. Godfrey, F.S.A., who deals with the restoration of the "Dorset Arms," a little inn presiding over the village green of Withyham, on the northern slope of Ashdown Forest. The house, in this case, was not always an inn, but it dates from the early 16th century, if not before. A "clean sweep" has been made of the 19th century decorations, and to-day "The Dorset Arms" is possessed of a new lease of life. Instead of hiding its fine architectural features, it shows them with pride to all who enter its doorway.

R.I.B.A. Visit to William Whiteley Village.

The third of the series of visits arranged by the Art Standing Committee of the R.I.B.A. to buildings of interest in and around London will take place on Saturday, July 16th, to the William Whiteley Village Homes, near Walton, Surrey. The Committee are arranging for a motor-omnibus to convey the party direct from Conduit Street to the Homes and back. It is proposed to leave Conduit Street at 2 p.m. and return about 7 p.m., and th cost, including tea, will be about 5s. pe head. For members who prefer to go b rail the following trains from Waterlo to Walton will be found convenient 1.54 p.m., 2.4 p.m., 2.20 p.m., and 2.3 p.m. Cabs to the village can be obtaine at the station. Ladies are particularl invited, and all who propose attendin should communicate at once with th Secretary of the R.I.B.A., 9 Condui Street, W.1. The visit will provide a opportunity for examining some of th work executed by eight or nine of ou most eminent architects.

New Natural History Buildings, Glasgo University.

Glasgow University is soon to be pro vided with a building to "house" it Natural History department—particularl that branch of it dealing with zoology. I was originally suggested that the workin laboratories of the zoology departmen should be constructed on the north fron adjacent to the existing rooms, but i was objected that the architectural fea tures of the main building would be pre judiced by such an arrangement. It was accordingly decided to place the new building in close proximity to the depart ment of physiology, and Messrs. John Burnet, Son, and Dick, architects, Glasgow, have been commissioned to prepare plans suitable to this site, which covers an area of about 3,000 square yards to the south-west of the main buildings. Building operations are to be commenced immediately, and it is hoped to have part of the new premises ready for the winter session of next year. The estimated cost of the new buildings is about £130,000.

Society of Architects' Competitions

Travelling Studentship.—The programme was a design for "A Working Man's Club and Institute," and the Council has awarded a prize of £15 15s. to J. F. Hampton, Licentiate, of Paddock Wood, Kent.

April Quarterly Competition.—Subject, an Essay on "Modern Methods of Building Construction." The Council has awarded a prize of the value of £3 3s. to C. A. Browne, Student of Birkenhead.

July Quarterly Competition.—The July Quarterly Competition is for architectural sketches made during the nine months prior to July 31st, 1921, and is restricted to Licentiates and Students of the Society. Prizes of the value of £6 6s. and £4 4s. are offered. Sketches must be delivered at the offices of the Society, 28 Bedford Square, W.C.1, not later than July 31, 1921, and must be accompanied by a declaration signed by the author that the sketches were completed within the time stipulated and are his unaided work. The declaration must be in a plain sealed envelope, and the sketches must not bear any name, motto, or other mark of identification.

The Architectural Scholarship, value £15, for not less than three or more than four imperial sheets of measured drawings and details made between January 1st and September 30th 1921, of some building of historic interest. Licentiates and Students of the Society may obtain further details from the Secretary at 28 Bedford Square, W.C.1.

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THE ARCHITECTS' JOURNAL & Architectural Engineer

With which is incorporated "The Builders' Journal"



CAIUS GABRIEL CIBBER (1630-1700)

The fame of Colley Cibber the dramatist has somewhat dimmed that of his not less gifted father, Caius Gabriel, a sculptor of no mean repute in his day. Born in Holstein in 1630, he was son of the cabinet-maker to the King of Denmark, who, noticing that the lad displayed an unusual talent for sculpture, sent him at his own expense to pursue his studies in Rome. His training completed, he came to London, and, following the fashion of the time, carved allegories and gods, adorning groves and lawns with classical deities, nymphs and fauns. Some of his best work may still be seen at Chatsworth, although wind, weather, and changing taste have played havoc with the freestone in which he wrought. Cibber was employed by the Government on various monuments, and was responsible for some of the statues of the kings which adorn the Royal Exchange, but his claim to genius depends on his far-famed figures of Madness and Melancholy carved for the chief entrance to Moorfields. They afford the earliest indications of a natural spirit in sculpture, and have been hailed as "first in conception and only second in execution among all the productions of the island.

27-29 Tothill Street, Westminster, S.W.1.

Modern American Architecture. 23.—Detail of a City Residence

Charles A. Platt, Architect



The above illustration is from a charcoal drawing made by (Mr. Schell Lewis) in the office of Mr. Charles A. Platt as a means of studying design. The mouldings around the windows were re-studied, and a rectangle of paper showing the new treatment has been pasted in; also the band of ornament at the level of the second floor has been re-studied as shown by the simple panel at the left which replaces the original swag to be seen at the right of the door. For the illustration we are indebted to our contemporary "Pencil Points."

THE
ARCHITECTS' JOURNAL
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Mr. Fry's "Architectural Heresies"

THE article on "Stunts and Standards" which was printed in our issue of July 6 provoked a reply that appeared in last week's issue, and this week the author of the article retorts upon his critic. Author and critic seem equally to have misconceived Mr. Roger Fry. That is largely his own fault. He deliberately labelled himself as a heretic, and must not—indeed, it is quite certain that he will not—complain if he is taken at his own valuation. It would seem that he rather rejoices in the rôle of *enfant terrible*. With refined irony, he prints on the cover of the pamphlet in which he has now issued his lecture, a paragraph (from an architectural contemporary) in which he is roundly abused, its "most unkindest cut of all" being the recommendation that "a cold douche of absolute silence would free us from a plague of decadent writers, futurists, would-be revolutionists, and others, who, as W. S. Gilbert put it, 'would never be missed.'" W. S. Gilbert's words usually carry a slightly different cadence, but the insinuation is the same. It must be for earlier, more youthful offences that Mr. Fry is thus mercilessly referred to a lethal chamber, and upon the vagaries of his callow days that he is so vigorously condemned by the writer of the article on "Stunts and Standards," who makes such irrelevant allusions to Dadaists, Cubists, Vorticists, and Futurists, and who so scornfully takes to task the R.I.B.A. for its alleged departure from decorum, not to say from sanity, in seeking the aid of "Post-impressionist artists and paradoxical phrase-makers." Similarly, the correspondent who rushes to the defence of Mr. Roger Fry tacitly assumes the existence of "his strange and wayward heresies." Which be they? They must be ancient history. It would have been very difficult to detect any of them in his lecture, unless, in his printed lecture (the address, we may here remark, has been reprinted in pamphlet form), he had himself deliberately marked them off as being of that pernicious brand. So far from being heterodox and blasphemous, the ten alleged heresies he sets forth categorically are really nothing of the kind. Mr. Fry will never forgive our saying so, but his heresies are, almost without exception, the baldest truisms, fundamental items of the architect's accepted and cherished beliefs. That the architect sometimes fails to act up to them, and why, needs no explication. Mr. Fry very politely made full allowance for this weakness, and his charges against architecture amount to little more than that the effects of architectural frailty are seen quite often and almost everywhere—are, as he puts it, "more or less world-wide." His teaching, as far as it went, was quite innocuous, although the language held by his critics would rather seem to insinuate that he eagerly seized his opportunity of proclaiming some satanic gospel that, if it prevailed, would send architects to perdition and corrupt their clients beyond penitence or redemption. Why, in some of its passages Mr. Fry's lecture was primly orthodox. This, for example, might be the meek confession of an orthodox defender of the faith: "And here, Portland Place is the only roadway in London that gives one room to spread the wings of one's civic consciousness. It isn't, of course, mere size that I want (though some absolute scale of size relative to our human dimensions is indicated), but, like everything else in architecture, or all art for that matter, it is proportion that counts, as witness St. Paul's, where the actually small space spreads itself for the subtly deceived eye so sumptuously that one can hardly believe one has stepped so quickly from end to end. Or Trinity Library at Cambridge, as vast, as massive, as overpowering as the Temples of the Nile. But then, Wren is the one miraculous exception to all my generalizations about British architecture. He, indeed, was one of the greatest masters both of scale and of plastic expression that have ever lived." This milk for babes is not the kind of thing for purveying which Mr. Fry, as a correspondent ferociously insinuates, ought to be sent to the stake. Nor is it one of the "foolish sayings" that make us yearn "to purge our life from notoriety-hunters." In fact, it would be hard to find in Mr. Fry's lecture anything more heterodox than his distressing assumption that the ten mild truisms he enunciates are held for heresies among architects. He might as truthfully say that they repudiate the Ten Commandments. And if it gets abroad that the modern architect flouts the simple gospel propounded by Mr. Fry, the public will suppose that the Profession has fallen below that standard. But we know that it has not; and, so far as we can see, this possible misapprehension is the sole danger that lurks in Mr. Fry's lecture, which, even so, is likely to do much more good than harm. It set architects ruminating, and aroused a lethargic public to the point of perceiving that architecture, so far from being hopelessly insipid, is a subject that might be made interesting to the point of heresy. How surprising and delightful a discovery! Inviting Mr. Fry to lecture was not a "stunt." It was simply choosing a lecturer whose repute was likely to bring together many hearers, and whose treatment of the subject was certain to invest it with fresh interest. Both anticipations were amply justified in the event, and the dual object of awakening the public interest and stimulating the professional interest in architecture was admirably fulfilled. There is no reason at all why architectural matters should be eternally discussed in a dull and humdrum academical manner, still less with bigoted contempt for views other than our own. Again we offer our sincere congratulations to the R.I.B.A. on the breadth and liberality it has long shown in its choice of lecturers; and to this acknowledgment it may be appropriate to append a word of thanks to Mr. Roger Fry for the studious moderation of tone of the address of which the heterodoxy has been curiously and unwarrantably exaggerated, by himself as well as by his critics.

Notes and Comments

Building and the Business Revival

TO-DAY we are enjoying a condition comparable to Abou ben Adhem's "deep dream of peace." Everywhere there is at least freedom from industrial strife. Coal being again procurable, every worker seems eager to restart the machinery and "get busy." Many and cheering are the signs that everywhere Labour has at length realized the supreme importance of what "The Times" aptly summarizes as "hard work and good will." Labour is showing its willingness—the engineers' vote accepting a considerable wage-cut is the latest and most significant example of this—to adopt and apply this motto. In the building industry, the evil effects of inflated prices for materials and labour have been clearly seen, and the Wages and Conditions Board, a composite body of employers and operatives, has recommended reductions by fourpence or fivepence an hour in wages. Building has therefore become once more "a business proposition," and the flowing tide of prosperity is at length upon us. Architects will now be able to advise their clients to begin building at once, as prices are not likely to fall any lower. If, indeed, in the rush for precedence, they should happen to rise a little, the increase would be negligible, being of less value than the loss of time and opportunity through hesitation to build the premises that are to compete with rival commercial or manufacturing concerns. It is now full speed ahead, for there is no obstacle discernible in the fairway.

National Federation's Summer Meeting

Next Wednesday (July 27) the National Federation of Building Trades Employers of Great Britain and Ireland will hold, at the Royal Victoria Hotel, Sheffield, their half-yearly general meeting, following the meeting of the executive council held at the same place on the same day. An official welcome will be extended to them by the Lord Mayor, who has invited them to the town hall, where the Lady Mayoress entertains the lady members to afternoon tea. Next day there will be an excursion into Derbyshire, which will include a visit to Haddon Hall; its romantic legend should appeal at least to the ladies, whose presence lends so much charm and colour to a meeting that tends more and more to take on a pleasant social character. Interesting business items, however, vitalize the agenda. Among them is one that is of general importance. It is a resolution "That Government Departments should in future supply to contractors who have tendered for work a list showing the result." Certainly; why should the results be treated as if they were Cabinet secrets? Not merely to satisfy the curiosity of contractors, but to keep things fair and above-board in the public interest, such information should not be withheld. Government officials, we know, revel in paltry secrecy, but indulgence in this vitiated appetite is generally opposed to the public interest.

Exit Dr. Addison and National Housing

Neither Dr. Addison's resignation from the Government, nor his personal explanation to the House of Commons last Thursday, came as what political writers are fond of calling "a bombshell." The resignation was clearly foreshadowed from the moment when Dr. Addison became "a Minister without portfolio," and his explanation contained nothing new. It was the melancholy story of the thwarted enthusiast. Dr. Addison was sincere enough in his endeavours to provide houses for the people. Nobody ever doubted that. It was only his methods that were in question; and it was hardly fair to judge him on these, since he was balked at every turn. He deserves the respect and the thanks of the community for his earnest endeavour to serve it. The community will also agree with him in regarding the virtual abandonment of national housing as "a betrayal of solemn pledges to the people and of the Government's obligations to local authorities and to many individual citizens." Dr. Addison's apologia followed a statement by his successor in office, who explained the situation with considerable frankness, and he wound up with the abject admission that "it is impossible to incur greater commitments than our finances will allow." A most lame and impotent conclusion to a scheme that from the first was seen to be utterly impossible of fulfilment. And what of the injustice to architects, large numbers of whom abandoned their private practices in order to help the Government in its housing schemes? We shall refer further to the whole matter next week.

British Society of Glasspainters

At length this goodly vessel is fairly launched, after being, as one of its builders phrases it, "two long years on the stocks." Those years have not been consumed in idleness. The provisional council of the Society has been very active. There has been a very successful canvassing of master glasspainters, less than four per cent. of whom have failed to respond with alacrity to the call; and surely all these will make up their minds to join when they hear that the select band of vice-presidents now includes Sir Reginald Blomfield, R.A., and Mr. John W. Simpson. It is the happiest of auguries that the unity of the arts is thus recognized, both by the Society in paying this graceful tribute to the Profession by extending this invitation to two of its leaders, and by those two gentlemen in accepting it. Will the R.I.B.A. return this compliment by electing hon. members from this newly constituted body of glasspainters? The essentially architectural interest of the subject would then receive graceful recognition from both professions. A further step making for co-operation is the request by the Worshipful Company of Glaziers that the glasspainters shall send two delegates to confer with the Court of that company on a scheme of technical education.

Apprenticeship in the Building Trades

Apprenticeship in this country assumed a new phase with the proposal to admit adults to training in the building trades. Fresh developments are sure to arise from experience derived from the working of this project, whether it succeed or whether it break down.

Whereas in this country the difficulties of the shortage of skilled labour arise from the growing neglect of apprenticeship, it is clear that in comparatively new countries, like Canada, the concern is not so much to revive as to initiate the system. Which country, the old or the new, has therefore the harder task to perform it is not profitable to inquire just now; but certainly fresh interest in the subject is aroused by the news that the National Joint Conference Board of the Building and Construction Industries of Canada has submitted a plan to employers' associations and trades unions which, in its main essentials, is believed to be generally acceptable. This Board recommends the formation of a National Apprenticeship Council, comprising a journeyman, two architects, and two industrial engineers from each branch of the industry, which council will set up local councils of a similar character. The apprentice, besides being given every opportunity to learn his trade under his employer, is to attend a technical school for one-sixth of his time, or not less than two days and a half in the week, and will also be required to attend evening courses twice a week during school terms; and the local council is to arrange hours of labour, working conditions, rates of wages, and all other details; shall arrange with local educational authorities for classes for apprentices, and shall appoint an examination board. These are the salient features of the Canadian scheme; and, possessing but little novelty, they call for no particular comment. Their

chief value lies in their implicit encouragement of faith in the apprenticeship idea—faith that, in this country, and especially in the industry of building, seemed, until the present revival, to be flickering to extinction. Incidentally, they commend the spirit of association of united effort, which also has been remarked to decline a little from war-time cordiality until the League of Nations idea was proclaimed, and a proposal for Unity of the Profession was acclaimed with the exultation that marks revulsion from apathy. It would not be surprising if the full and earnest consideration of the apprenticeship question—of the ways and means of training the young craftsman to a higher appreciation of his work—should make a powerful bond of union between all sections of the industry; and it is of very hopeful augury that architects are becoming increasingly interested in the matter.

Proper Propaganda

By WILLIAM HAYWOOD, F.R.I.B.A.

THE reference made by Mr. Charles Cowles Voysey in THE ARCHITECTS' JOURNAL for June 29 to the proposed R.I.B.A. Bronze Medal award, and the allusion to certificates for the best street architecture of the year made in Professor Reilly's paper on "Propaganda and Publicity," will remind those who attended the recent Conference at Liverpool of an interesting subject treated with great vivacity, and also of the debate on the niceties of *propaganda* versus *proper propaganda* which subsequently took place. The conclusions arrived at on that occasion justify me, I think, in claiming a proper amount of notice for Birmingham among those who are working for the encouragement of civic art, especially as the President in his summing up claimed precedence for the R.I.B.A. by virtue of the bronze medal referred to.

Birmingham's Example

Now Birmingham not only possesses a medal which is awarded annually for excellence in civic art, but our medal is of gold, and as we have already made our first award, I take it that we can claim the premier position in England for this class of cultural effort.

It is true that our award is made by the Birmingham Civic Society, but I see no reason to yield place on that account; the object in view is the same as that of the R.I.B.A., although we have certainly enlarged the scope of our award, which was originally limited to "building frontages" and has now been made to cover "The best executed work of the year which shall be judged to have added most to the amenities of the city."

Perhaps our experience in making this award may be thought interesting, although circumstances robbed it of any strain upon our modesty, which was not tested on this occasion by the ordeal of selection among local architectural masterpieces, the war having suppressed the possibility of such things. Even had they existed, however, it is difficult to see how they could have successfully competed with the choice of Mr. Appleby Matthews, to whom the gold medal was awarded for his admirable work in establishing among us a City Orchestra. All those with a knowledge of musical *esprit de corps* will agree on the great merit of this enterprise, and on the importance of its immediate success, since a second chance to make good was not likely to recommend itself to our municipal authorities.

The Wide View

The Society felt that the clause governing the award was not unduly stretched when made to cover music, and it scored a useful point by showing that a Society which is naturally largely preoccupied with architectural affairs, and therefore strong in professional representatives, can yet take a wider view of civic needs than that branch in which it is more particularly interested.

I shall continue to be well within the scope of my title if I say that our Civic Society, in common with similar societies elsewhere, has had its initial trials, and that it is successfully passing through the very critical period of its first few years. The usual competitions for street accessories, etc., have been worked off, with, so far as the competitors were concerned, the usual result (Civic Societies will know what I mean), and we are now proposing a method of action which, if successfully established, will give us that working foundation which is vital to the well-being and maintenance of all such bodies, viz., an automatically created agenda of real importance. No more can be said at present, but if we succeed (and there is reason to think that we shall), all honorary secretaries of Civic Societies shall be fully informed.

Words and Deeds

There has been a good deal of talk about Civic Art of late, but to translate talk into action is not an easy matter; it is really of no use meddling in civic affairs unless one is prepared to show a thoroughly practical grasp of the difficulties which face the elected representatives of the people, by whom schemes must be fathered if they are to mature. For the most part such representatives will take but a small portion of art with a very large dose of what they believe to be business efficiency, and in the early days of a civic art movement, especially, every proposition put forward must be impeccable, matters of taste being so difficult to maintain with the average business man, who has his own ideas of what is vital in an urban existence.

But assuming a scheme to be more or less sanctioned by the local authorities, you cannot do better than publish it in the best and most attractive style funds will allow. This puts the work on record, causes it to be generally known, helps to get financial support by its evidence of work done, and fosters that publicity without which the progress of reform in civic art is slow indeed. This is sound propaganda.

A Case in Point.

For instance, the Birmingham Civic Society has just brought to a successful issue a scheme of some interest which will shortly be published at the mere cost of printing, viz., two shillings (if this is improper propaganda I hope to be forgiven). It will be found to embody most of the conditions outlined above. Its purpose is to show by means of a concrete example how an interesting old village in the environs of our city, and within the scope of town-planning operations, may be preserved as a delightful interlude in the monotony of modern housing development.

The Society first held a competition for a suitable plan which proved to be abortive, then itself prepared a plan, took a photographic record of existing conditions, wrote up the local history, is organizing a fund for the purchase of certain open spaces among which is an old moated garden, and finally will give £1,000 from a special fund available for the purchase of open spaces, towards the proper treatment of the neighbourhood centre. All this is set forth in the brochure referred to, together with suitable acknowledgments of the fact that the whole of the proceedings have been supported by the Municipal Town Planning and Public Works Department.

May one hope that this preliminary notice will help towards the proper distribution of a booklet which has such claims to be considered *proper* propaganda?

Architectural Causerie

A Brangwyn Exhibition

THE third of the series of free exhibitions of architectural pictures arranged by Technical Journals, Ltd., in their library at 27 Tothill Street, Westminster, is now open. It comprises architectural etchings by Mr. Frank Brangwyn, R.A., who has courteously lent them for this occasion. They include subjects so varied as churches, a mosque, bridges, the breaking-up of the "Duncan" man-of-war, and a railway station. Of these etchings it is unnecessary to say more than that they are richly representative of the work of an unrivalled master. Architects and art-lovers are cordially invited to visit (between 10 a.m. and 5 p.m. each day, except Saturdays, when the room is closed at noon) this magnificent little exhibition of truly great etchings.

Unhappy Statuary

"Restlessness" is the badge of all our statues, as it is of Labour. There are now rumours that one or two of London's equestrian statues are to be shifted about as if they were knights on a chessboard, moving zigzagily from one square to another some distance away. All statues ought to be in squares, then they would look more stately and there would be fewer of them. The Duke of Cambridge looks very unhappy in the middle of the road, in front of the War Office. Some wet night he will ride away to Westminster and borrow Sir Sydney Waterlow's umbrella, a weapon of which he was reputedly very fond, and it must be admitted that there could be no more graceful and sensible complement to a Field-Marshal's uniform. Speaking of Field-Marshals, what of Lord Wolseley's companion that-is-to-be of the Horse Guards' Parade? You can almost see Wolseley's charger pawing his pedestal with impatience at the non-arrival of Lord Roberts. There his pedestal has been for months; but horse and rider "you cannot see, because they are not yet in sight." To balance this phenomenon of a pedestal without a statue, we must go to Parliament Square, where, concealed somewhere within a peculiarly hideous hoarding, there is, they say, a statue of Abraham Lincoln awaiting its pedestal. Thus we even up, and strike a fair average as between pedestals and statues; but still we are not happy in it.



STAIRCASE, MOUNT MELVILLE, ST. ANDREWS, N.B.,
PAUL WATERHOUSE, P.R.I.B.A., ARCHITECT.

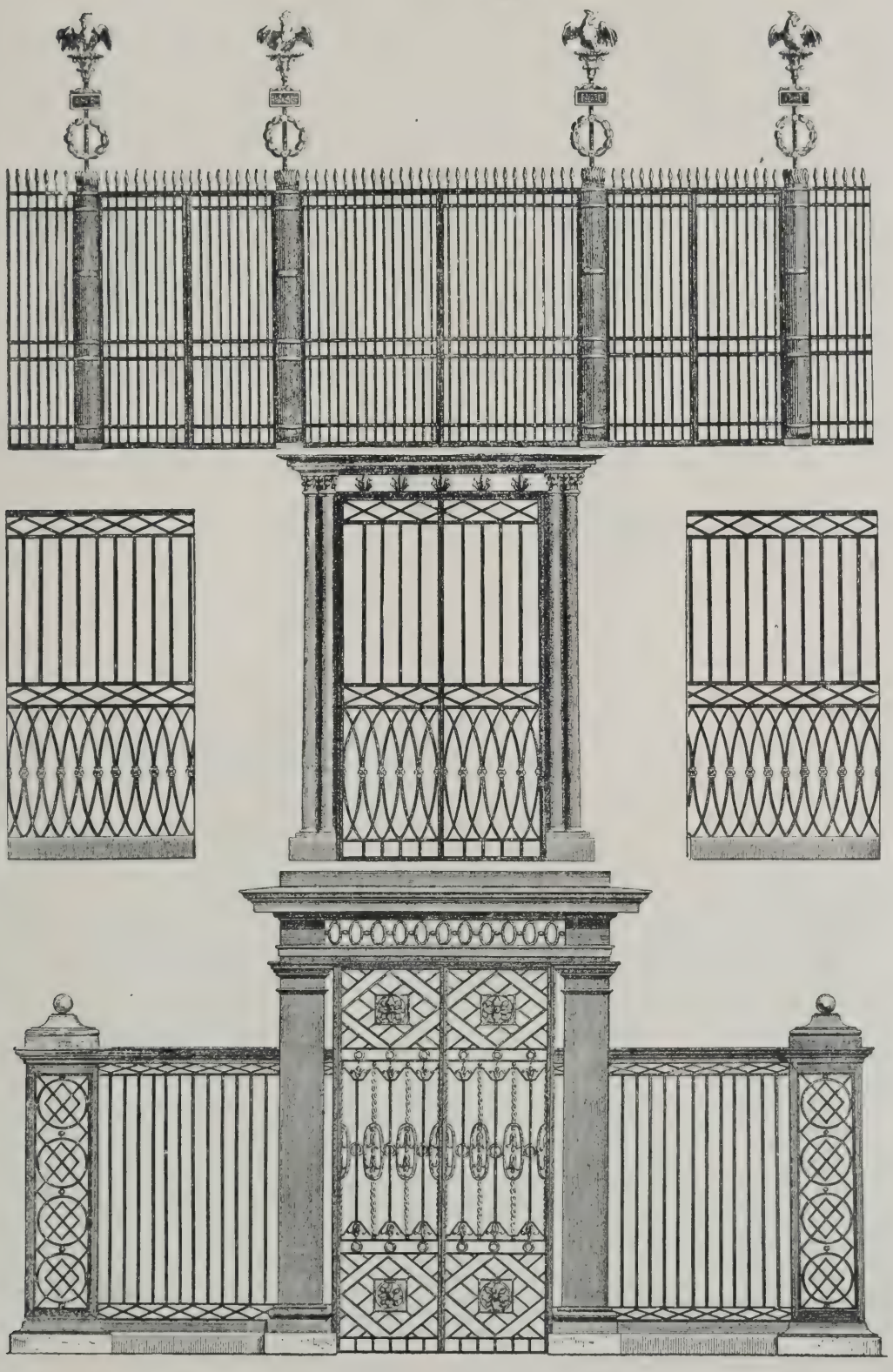
Hawksmoor's Tomb

Yet another unobtrusive act of piety stands to the credit of the R.I.B.A. Mr. John B. Chubb having, through Mr. Guy Dawber, called attention to the condition of the tomb of Nicholas Hawksmoor in the church of St. Botolph's, Shenley, Herts, Mr. Maurice Webb, as hon. secretary of the Art Committee, visited the tomb, and subsequently, with the sympathetic consent of the vicar and churchwardens, arrangements were made to repair the tomb and to place in the church a record of the architect's career. If Hawksmoor's was not really a great career, that was partly because he was overshadowed by Wren, whose "scholar and domestic clerk" he was, and whom he assisted at St. Paul's Cathedral, at Easton Neston, and elsewhere, and because afterwards he played the junior to Vanbrugh, who leaned upon him heavily as his trusted adjutant at Blenheim Palace, at Castle Howard, and at the old Clarendon Press buildings, at Oxford. Moreover, the many official appointments that Hawksmoor held could have left him but scant opportunity for the free and full development of his native genius. That he indeed had strong individuality, and the potentiality of becoming, under more favourable conditions, an architect of greater repute than that generally and rather grudgingly assigned to him, is evident—or is at least suggested—in the comparatively few existing designs attributable to him as sole author. In support of this claim the church of St. Mary Woolnoth (being, by reason of its prominent position, his best-known work) can be confidently cited. In their pious regard for the memory of Hawksmoor, Mr. Chubb, Mr. Guy Dawber, Mr. Maurice Webb, and the Arts Committee and the Council of the R.I.B.A., have served architecture tenderly and faithfully. Their action may do much to remind a generally apathetic public that in the Profession there is here and there a memorable reputation.

Stately Stowe

As a gift to the nation, Stowe House, Buckinghamshire, is a formidable rival to The Chequers. Mr. Harry Shaw, of Beenham Court, Newbury, who bought Stowe House for £50,000, with the object of handing over the mansion with 270 acres of the grounds to the public, has, it would seem, got it at a bargain price, which, moreover, includes a few priceless things such as the Grinling Gibbons overmantels in the State dining-room, and ceilings painted by Angelica Kauffmann. To rehabilitate the gardens, which were originally laid out by Kent, will involve rather formidable expenditure, but Mr. Shaw seems determined at all costs to make his gift as princely as may be. Ionic pavilions were designed by Kent, but altered by one Signor Borra, who was architect to the King of Sardinia; and Kent designed also a "Shepherds' Cave" and the principal entrance gate to the grounds. It was Vanbrugh who designed the two Boycott Pavilions and the Temple of Bacchus; but his Rotunda, raised on ten Ionic pillars, was altered by the aforesaid Borra. Mr. Shaw acquires the temples—dedicated to Friendship, to Ancient Virtue, to British Worthies; above all there is the Temple of Concord and Victory—an old-time war memorial. To what uses stately Stowe House, with its elegantly classical façade and its spacious interior, will eventually be put, may not soon be evident. Does Buckinghamshire want a university building? Stowe House, with its fine grounds and its many temples, would be ideal.

French Metalwork. 17.—Empire Gates and Railings



These gates and railings are characteristic of the severe type of design that followed the close of the authentic Renaissance in France. In their simplicity of character they afford excellent motifs for adaptation to the requirements of the present day.

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Civic Design and Planning at Sao Paulo

IN this issue we illustrate some delightful civic work that has been recently carried out at Sao Paulo, Brazil, from the designs of Mr. Barry Parker, F.R.I.B.A. The position when Mr. Parker was called in to advise the municipal authorities of the city was as follows: On the north-east side of the Avenida Paulista the municipal authorities had had erected at their own expense a very sumptuous belvedere known as "The Trianon." This belvedere was erected on land which fell rapidly from the Avenida Paulista to the north-east. It consisted of a large terrace a few feet above the level of the Avenida Paulista, with temples and two elaborate pergolas standing on the terrace. Below this terrace there is a large ballroom based, in design, on the grand Trianon at Versailles, and below this again another terrace. The details of the temple and pergolas which stand on the main terrace are certainly interesting, but bizarre and lacking in restraint.

Opposite the Trianon and on the south-west side of the Avenida Paulista there existed a large area of ground belonging to the municipal authorities of Sao Paulo, which was nothing more nor less than a section of the primeval forest which once covered the site on which the city now stands, and left almost in its original state, and now in the heart of the city. This area contained many trees that must have been there long before the possibility of a great city rising up in its vicinity was ever dreamed of. Among these trees the winding paths shown on the illustration on page 72 had been cut, but nothing beyond this had been done to convert this area into a public park, and it was very little used by the public; in fact, it was possible to pass and re-pass it when traversing the Avenida Paulista without ever realizing that it was a public park at all.

The municipal authorities of Sao Paulo, a city of 500,000 inhabitants, asked Mr. Parker to advise them how it could be converted into a public park and woven into one architectural whole with "The Trianon" on the opposite side of the Avenida Paulista. Mr. Parker suggested that the creation of two wide vistas, cleared of trees, and converging on the main entrance to "The Trianon" and opening up views of distant mountains from "The Trianon," would tend towards the attainment of the results they wished to achieve. Mr. Parker further advised that the weaving of "The Trianon" and "Parque Paulista" into one architectural whole could best be secured by carrying the two existing pergolas in "The Trianon" beyond the two temples which terminated them, across the footpath in the Avenida Paulista, and building other pergolas in the Parque Paulista in line with, or in continuation of, the pergolas which existed in the Trianon, carrying these new pergolas over the footpath in the Avenida Paulista.

To emphasize the fact that the Parque Paulista was a public park, and to give expression to the fact that the public were welcome to use it, the architect showed on his plans octagonal temples in the two pergolas to be erected in the Parque Paulista, and the temple to be erected in the angle created by the junction of Rua Peixoto Gomide and the Avenida Paulista was similarly shown. The octagonal form was chosen because it afforded an opportunity to devise entrances into the park facing down the Avenida Paulista both ways. The temple which stands in the angle formed by the junction of the Rua Peixoto Gomide with the Avenida Paulista was connected by another pergola with the two pergolas which are continuations of those in "The Trianon." These latter were set well back from the Avenida Paulista with a view to securing the open and welcoming effect aimed at. Another terrace was formed, with lawns, ornamental water, and fountain, between the two pergolas which were a continuation of the two in "The Trianon." The vistas through the Parque Paulista were arranged in such a way that one of them opened up from the main entrance to "The Trianon" a selected view of the distant hills, and the other terminated on the entrance to a large school building.

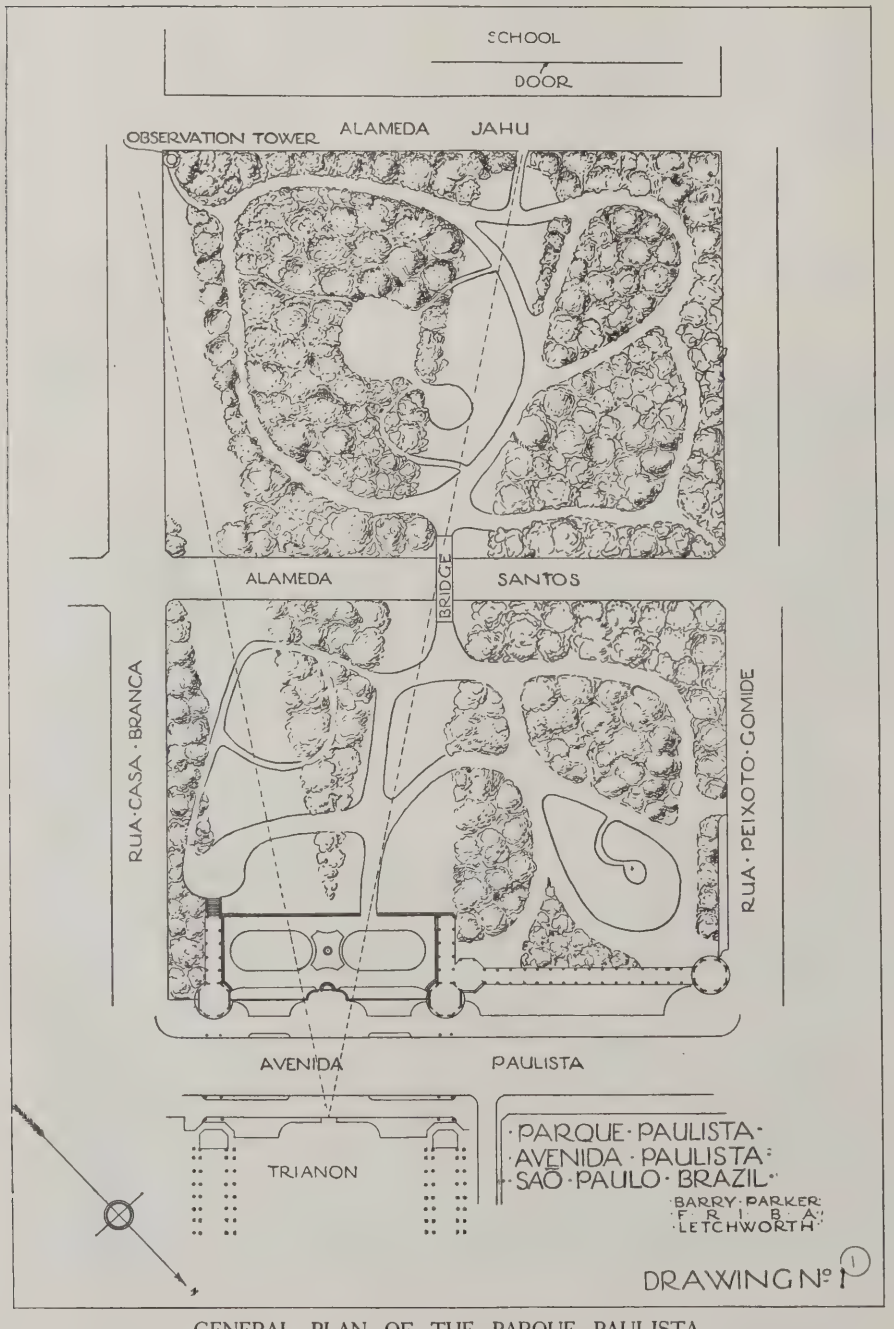
It was Mr. Parker's intention that the three temples which have been erected in the Parque Paulista should be covered by domes. The one departure from his plans which the municipal authorities of Sao Paulo have made is to cover them in



DETAIL OF PERGOLAS, ETC., IN THE PARQUE PAULISTA, SAO PAULO, BRAZIL
BARRY PARKER, F.R.I.B.A., ARCHITECT



TEMPLES AND PERGOLAS IN THE PARQUE PAULISTA, SAO PAULO, BRAZIL.
BARRY PARKER, F.R.I.B.A., ARCHITECT.



GENERAL PLAN OF THE PARQUE PAULISTA.

with glass. This was done only after a decision to make cactus houses of them.

Mr. Parker came away from Sao Paulo without having made detail drawings for the iron gates in the temples, but not before he had made complete full-size and large-scale drawings for every other detail in the scheme.

The Avenida Paulista is a magnificent avenue running, for the most part, along the crest of a hill and about two miles in length. It is 27½ metres wide (90 ft. 3 in.). It is lined on both sides with houses, many of which would not be unfittingly described as "palaces," the land on which they stand being of very great value; all these houses stand in extensive and beautiful grounds.

Designs for Stage Scenery

If the Exhibition of Designs for Stage Scenery and Costume now being held at South Kensington Museum is a small one, it should be borne in mind that it is but an excerpt from the larger and rich repository hidden in the museum, and which can always be seen in the Students' Room, Department of Illustrations and Design.

The exhibition boasts of only two working models: one (seen recently at the A.A.) of C. Lovat Fraser's Beggar's Opera, in the other of William Stewart's Bazaar Scene in "Allah's Orchard," but it handsomely makes up this deficiency by a carefully-sifted show of posters, which act as a mere outpost to the exceedingly large museum collection. They are few but interesting. It is nice to see again E. Dulac's "Macbeth," Norman Wilkinson's "Twelfth Night," or Albert Rothenstein's "Winter's Tale." These, of course, are more or less familiar designs, but others, less known in this country, are also on view. One, by Toulouse-Lantrec, the famous French artist, so direct and so true to its period, is a foretaste of what we shall see very shortly in the same museum, when the exhibition of posters opens. Here is a good example of the mellowness of touch allied to the pungent wit and sure irony so often noticeable in gallic poster work. Do not overlook the two cases, with stage-setting

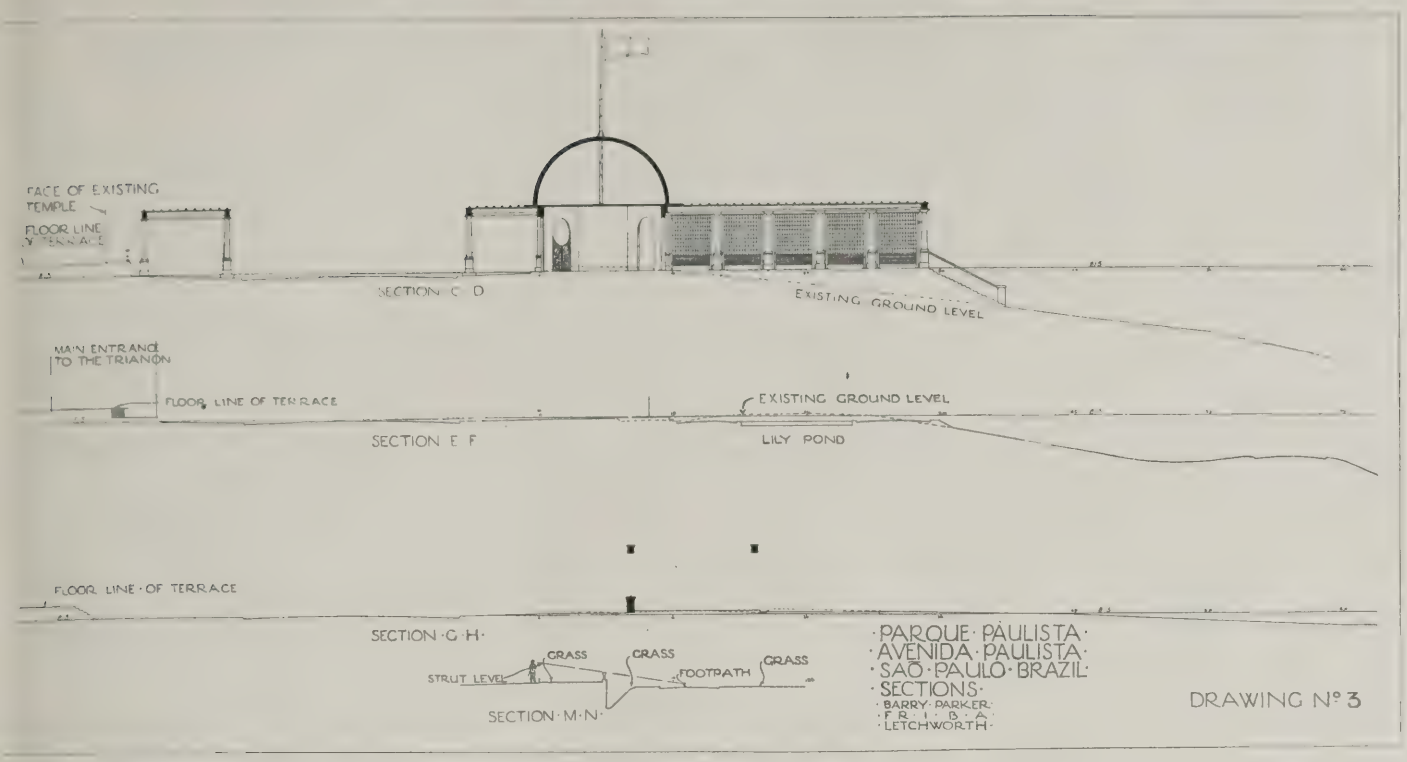
Current Architecture. 96.—Pergola in the Parque Paulista, Sao Paulo, Brazil

Barry Parker, F.R.I.B.A., Architect



On the commission of the municipal authorities of Sao Paulo, Mr. Barry Parker has carried out an extremely interesting scheme of civic planning and design, which includes the delightful pergola shown above. Full particulars of the work are given in the article which begins on page 71

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ONE OF THE TEMPLES IN THE PARQUE PAULISTA, SAO PAULO, BRAZIL
BARRY PARKER, F.R.I.B.A., ARCHITECT

drawings by Rosenberg, Aldrovandini, F. La Bibiena, Walter Crane, Claude Shepperson, and Nicholas Roerich. Certainly the R.I.B.A. collection of original drawings by the Bibiena is far more complete, but at least two sumptuous designs by these artists are worth more than a passing glance, for in both we have this quality of slick imagination made to flower with conspicuous success and brio, a by-product of the Baroque Period which gave us not only the Bibiene, but also Aldrovandini, whose designs, executed in a rich raw Sienna colour once more bear out the fine extravagance the Italians of that time dared to apply to stage scenery; it may have been somewhat vulgar and meretricious, but one soon forgot it in the midst of the cacoethic din, elemental effulgence and lively acting which it must have encouraged! G. HOLT.

Cost of Building

With a view to gaining some idea as to the proportions in which various items of cost entered into cottage building before the war, a careful analysis has been made by one of the leading housing experts in the country at the request of the National Housing and Town Planning Council.

His analysis shows the following proportions: Cost of building materials of all kinds, including cartage by road or rail and delivery on the site, 49 per cent; cost of labour, 41 per cent; builder's profit and overhead expenses (including management and rent of plant), 10 per cent.

The council considers that the item of 49 per cent. of the cost should long since have been made the subject of special action along the lines made clear in various reports of House of Commons Committees. It is, they say, the opinion of many who are well qualified to express an opinion that at least £100 would have been saved in the cost of materials if the group of financial advisers to the Government had pressed for vigorous action with regard to rings, which undoubtedly exist.

High Buildings on Narrow Streets*

By HARVEY W. CORBETT, F.A.I.A.

Apropos of the movement for higher buildings in London, Mr. Corbett's account of the building regulations in New York will be read with special interest.

WHEN I came into the building this morning I was met in the corridor by a delegate who said: "I understand that you are going to tell us how to plan high buildings. Now, that really is not necessary. We know how to plan high buildings. I wish you would tell us how to get high buildings to plan." I do not propose to tell you how to plan buildings, and I do not see how I can tell you how to get high buildings to plan, because all those that I know about I am planning myself.

I was somewhat worried when I got the title of this discussion, "Planning High Buildings for Narrow Streets." I was afraid it might be turned into the form of a question, "What shall be done to an architect who plans high buildings on narrow streets?" I was afraid I might be sentenced to a life of hard labour in the lower story of one of these high buildings, where sunshine never by any chance penetrates.

Architecture, we are told, is an expression always of the people of any given period. I sometimes wonder if our present New York architecture is an expression of the New York people. Certainly, as you come up the Bay, especially as you come in a steamer from the other side, and get your first view of New York, it is an impressive and imposing sight. I think that probably the American people are impressive and imposing people.

The Side View of New York

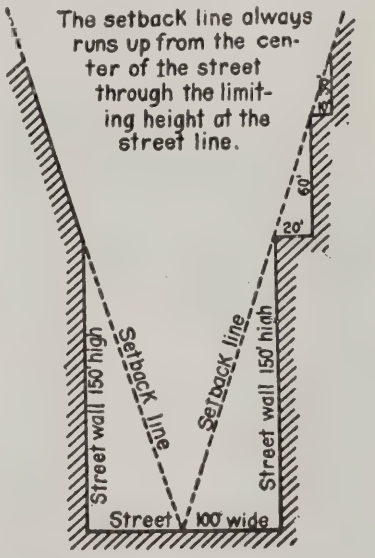
But as you get farther up the river and get a side view of New York, there seems to be a certain amount of "jazz" in outline, and I am afraid that if you get a side view of the New York people you find the same amount of "jazz."

Perhaps the most characteristic feature of the American people is given in that old-fashioned expression of "putting up a bold front." We as architects do a great deal of that. We put up bold fronts. We do not put up sides and backs and tops to go along with those bold fronts.

A foreign architect whom I asked once to give me an opinion of his visit to New York as concisely as he could, said, "Streets without end. Fronts without sides. Signs. Pent-houses and tanks."

Now, carrying this idea of architecture as an expression of a people further, I think that our present architecture is a very clear-cut expression of our present democracy. It is a democracy in which there is so much freedom that every man is free to do exactly as he pleases, without the slightest regard for his neighbours; and the conditions under that form of democracy have been carried to such an extent in New York City that we have been obliged to create a law making it impossible for that situation to continue.

Speaking of building laws, I want to discuss particularly examples of the changes which have occurred, due to the new law in New York; but, before discussing this law, I would like to call your attention to the law in the city of London, with which I have had some contact and conflict in the last few years. There the law was not brought about in such a systematic and thoroughly studied manner as the New York law. Queen Victoria happened to look out of her bedroom window one morning, and across the trees of St. James's Park she saw something architecturally extremely ugly which was rising above these trees. She made an investigation at once, called in her Ministers, and had a law passed limiting all future buildings in London to eighty feet in height to the cornice line, with two stories and a roof, and a sort of a mansard. The particular building which inspired this law still exists. It has an excessive height of twelve stories. Just imagine—twelve entire stories; and it is exceedingly ugly. This is the only



SETBACK PRINCIPLE.

Typical example in a 1½ times district, for streets 50 ft. to 100 ft. wide.

example that I know where humanity has directly benefited through a piece of perfectly ugly architecture.

I want to read you the general principles on which this law which we have discussed, in New York, is founded. "The law was framed to stabilize and confirm property values, to relieve the rapidly increasing congestion in the streets and in the transit lines, and provide for a reasonable amount of light and air in the buildings and in the streets, and in general to make the business of the city more efficient and the life of the city more healthful, convenient, and agreeable."

That law has been in operation since July 27, 1915, and judging from what it proposes to do, I do not want you all immediately to move to New York on the theory that the millennium has arrived, because, while the law is in operation, it has not quite resulted in making the city very much more convenient, beautiful, or agreeable; but it has done, or is doing, a very great work.

I am going to confine my effort principally to that part of the law which affects the height of buildings, although I must explain to you that this law is tied up very definitely with a zoning system as to the use to which buildings may be put, and that the height law varies in different parts of the city. The law, in principle, is simply this, that on any given street the building line on a principal front may go to a height which is a factor of the width of the street. Then a line drawn from the middle of the street through that corner goes on indefinitely, and a building continuing above that height must remain back of that line.

In London, for instance, this height would be limited to a definite height of eighty feet, irrespective of the width of the street. In Paris and other European cities the height varies with the width of the street. In New York the city is zoned, first for a maximum of two and a half times the width of the street, then in other sections twice the width of the street, and one and a half times, and finally once the width of the street. The reason for this was that if we had made, with the conditions in New York as they are, a law which was uniform for the city, it would have worked a tremendous hardship on property owners in those sections of the city such as lower Manhattan, where the existing types of buildings had developed a certain property value; and it would have made it impossible for future property returns to be the same on that value unless the law allowed a condition practically similar to that already existing.

Operation of the Law

The law, as you see, operates depending on the factor of the street. In some cases you will be in the one and a half district, on a street 100 ft. wide, and that allows you 100 ft. direct height; then, set back in proportion to these relations, you could carry the building back in the form of a mansard without any offset at all. That gives you a condition upon the corner something like the illustration reproduced (page 77), where it drops off at a given point at the centre. These set-backs are not necessary unless a man wishes to go above the restricted height.

Then, in addition to this set-back law, you are allowed a certain proportion of dormer, so called; that is, in a 100 ft. building, 60 per cent. of it can go up in a dormer at 45 degrees, and then that dormer goes back on the same angle. That forms a sort of an envelope of a rather irregular shape, inside of which the building must remain.

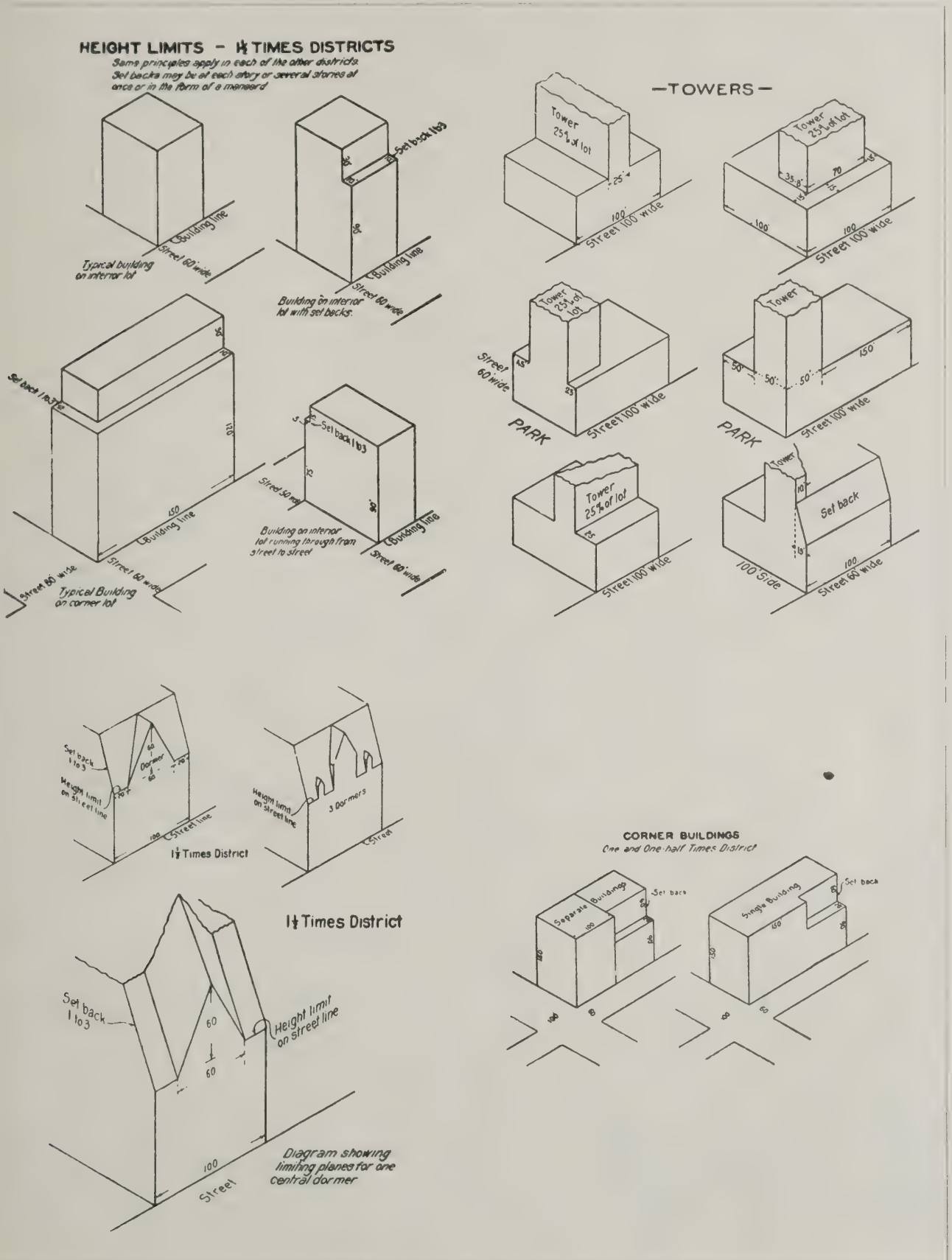
This need not all be taken in one

* Extracts from a Paper delivered before the Fifty-fourth Annual Convention of the American Institute of Architects.

dormer, but it can be divided up in a series of dormers of various sizes, provided the total width of the dormers does not exceed 60 per cent. of the width of the building.

New York has to-day so many towers and tower buildings, many of them of such interesting silhouette and composition, architecturally speaking, that the drafters of this law concluded that it would be a mistake to prohibit towers, and to prohibit buildings which went to unusual heights. With New York and its skyline as it is, certainly additional towers will not detract from the present outline; so they have this additional clause which permits, on any given piece of property, a tower of indefinite height over 25 per cent. of the lot. That means that the tower over 25 per cent. of the lot may rise from the centre of the lot or from one end of a building; or it may take a different shape. The only limits placed on the height of that tower would be structural limits, and the limits of course that the owner himself would impose through the use of elevators.

[For the foregoing extracts from Mr. Corbett's paper, and for the accompanying illustrations, we are indebted to our contemporary the "American Architect"]



NEW YORK CITY ZONE LAW DIAGRAMS.

Book Notices

The Compleat Painter and Decorator

It has been done at last. The right treatise on painting and decorating is being produced in the right way. That is to say, all phases of the art and craft of the painter and decorator are comprehended within its ample scope. Practical manuals on the work of the house-painter are plenty. Manuals on every phase of decoration are still more numerous. But the artist shuns the one, and the workman avoids the other. Consequently each person is left at a loose end, each remaining more or less ill-informed as to the aims of the other. A lacuna remained to be filled.

Now, the examples of decorative design that are usually thrown in as a sort of make-weight to the ordinary manual for house-painters are commonly villainous. The artist turns from them with infinite contempt. Redressing the balance, the practical house-painter rejects as unpractical the splendid specimens of design usually depicted in the average sumptuous art-book, of which, however, he seldom gets a sight, its price being beyond his own means and even keeping it out of his free library. Yet designer and craftsman have much to learn from each other. There are certain points of contact between them, and when these are reached it is of great importance for the executant to know what the designer would be at, and vice versa, so that the one may not unnecessarily frustrate the other, but, on the contrary, may the more intelligently co-operate with him.

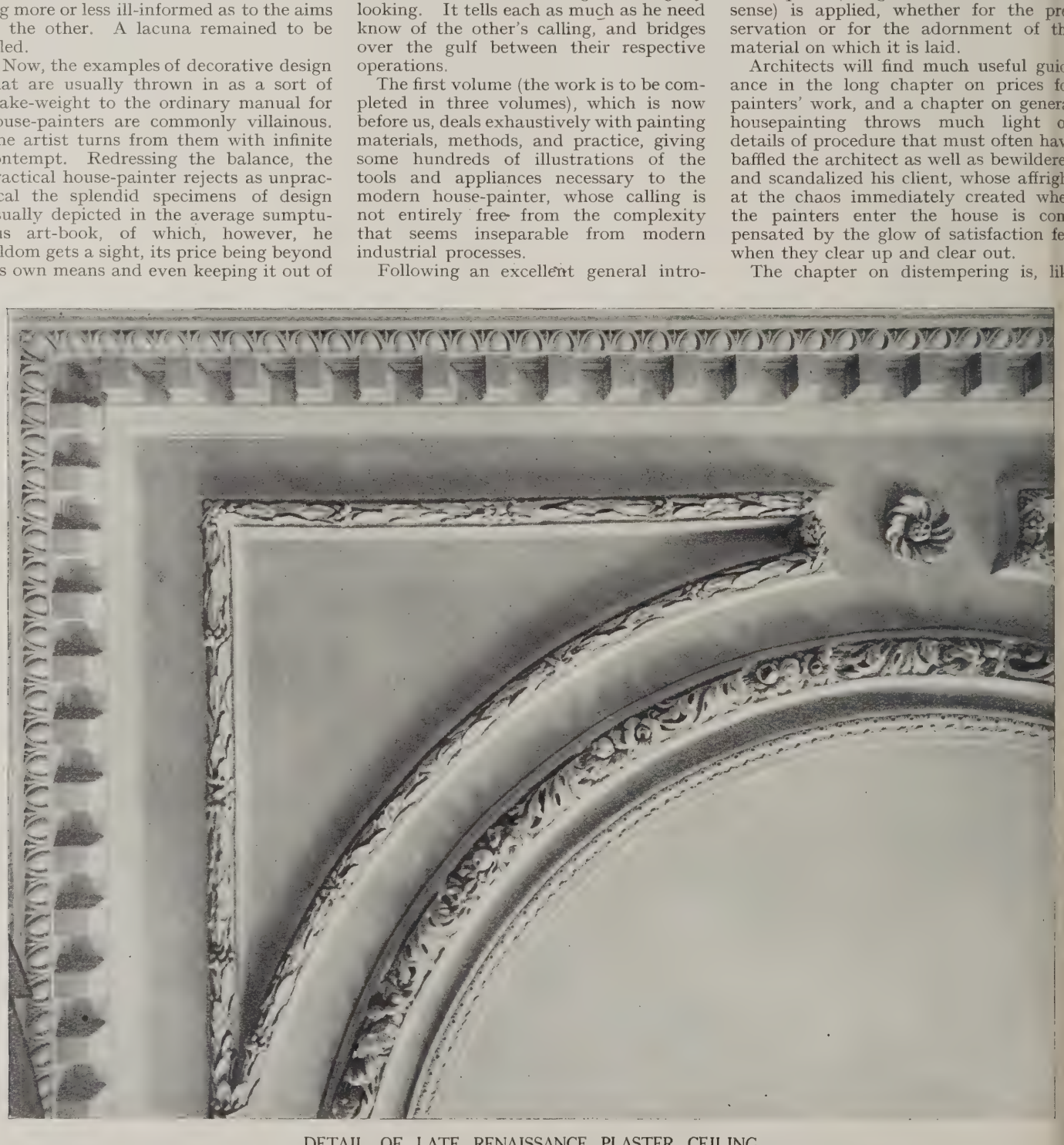
In scope and treatment, the work in the production of which Mr. Arthur Seymour Jennings and Mr. Guy Cadogan Rothery have co-operated is precisely the book for which the designer and the craftsman have been long and eagerly looking. It tells each as much as he need know of the other's calling, and bridges over the gulf between their respective operations.

The first volume (the work is to be completed in three volumes), which is now before us, deals exhaustively with painting materials, methods, and practice, giving some hundreds of illustrations of the tools and appliances necessary to the modern house-painter, whose calling is not entirely free from the complexity that seems inseparable from modern industrial processes.

Following an excellent general introduction, in which the authors give a com prehensive account of what the painte and decorator is expected to do and of th means and resources at his disposal fo doing it, there is an exhaustive chapte on painters' materials. In this the origi and natural (or unnatural) history of eac is succinctly given, and its idiosyncrasie in application are described—how it look and behaves when applied by itself, an again, when it is used in conjunction wit other materials of which the natural pro perties may modify its appearance or it chemical reactions, or how these thing are affected by the different surfaces t which paint (using the word in its wides sense) is applied, whether for the pre servation or for the adornment of th material on which it is laid.

Architects will find much useful guid ance in the long chapter on prices fo painters' work, and a chapter on genera housepainting throws much light o details of procedure that must often hav baffled the architect as well as bewildere and scandalized his client, whose affrigh at the chaos immediately created whe the painters enter the house is com pensated by the glow of satisfaction fel when they clear up and clear out.

The chapter on distempering is, lik



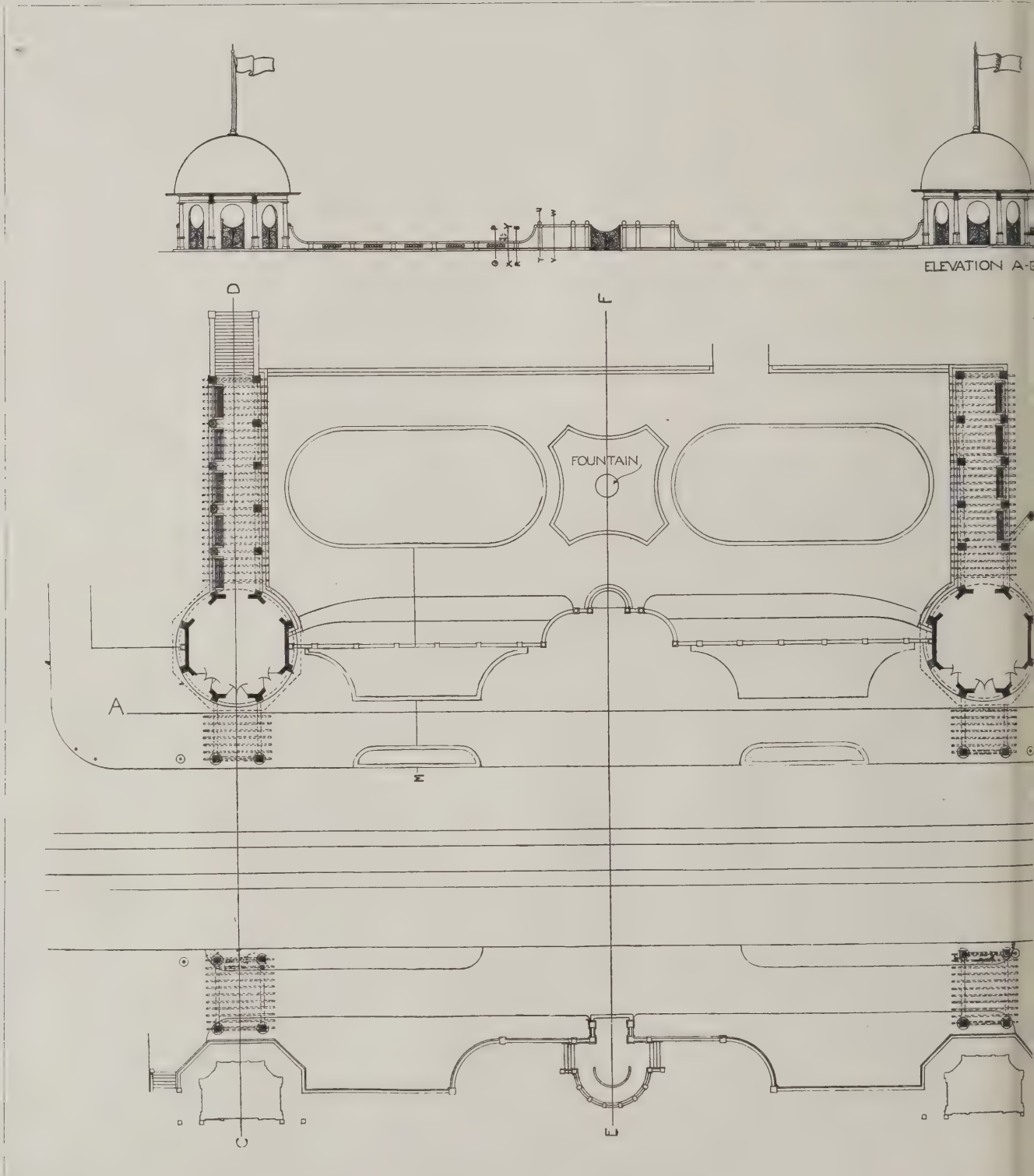
DETAIL OF LATE RENAISSANCE PLASTER CEILING.

(From "The Modern Painter and Decorator," by Arthur Seymour Jennings and Guy Cadogan Rothery.)

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Current Architecture. 97.—Pergolas, Temp

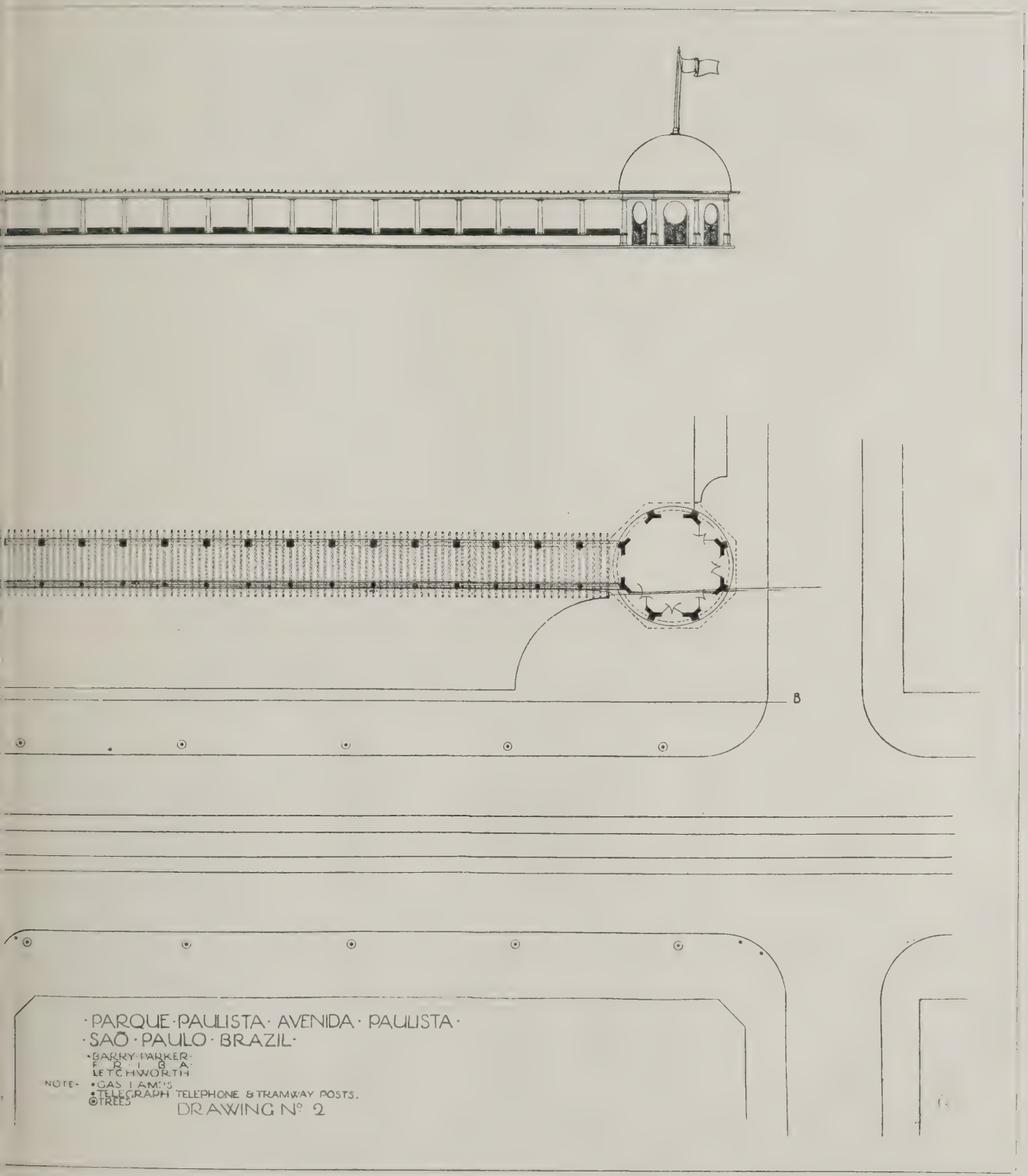
Barry Park



The above drawing shows part of an interesting improvement scheme carried out by Mr. Barry Parker on the commission of the public were welcome to use it, octagonal temples were adopted, this form being chosen because it afforded an opportun

., in the Parque Paulista, Sao Paulo, Brazil

B.A., Architect



nicipal authorities. To emphasize the fact that the Parque Paulista was a public park, and to give expression to the fact that ntrances into the park facing down the Avenida Paulista both ways. Full particulars of the scheme are given on page 71.

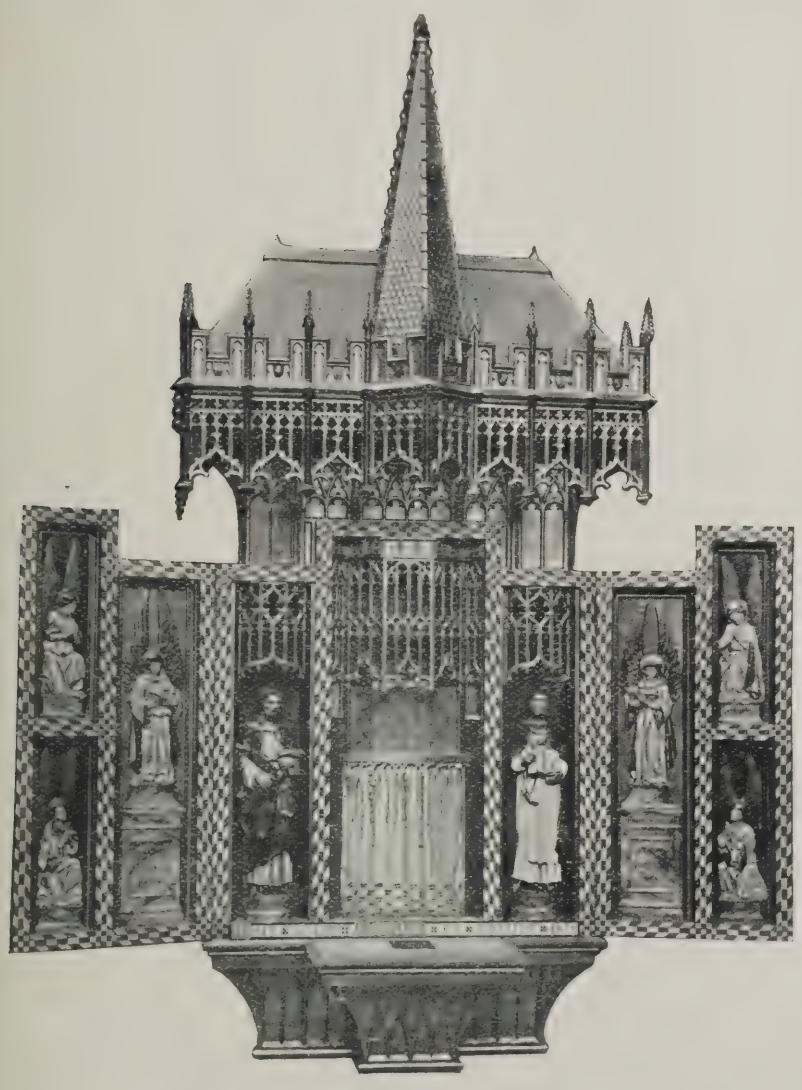
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the other chapters, replete with sound actical advice, and the art of paint and lour mixing is dealt with in elaborate tail. Gilding, stencilling, lettering, and n-writing conclude the practical portion the present volume; unless, indeed, a apter on law and insurance can be said come into that category, as it certainly es if utility be the criterion for admission. iis portion, like the rest of the book, ntains invaluable guidance for the udesman who aspires to be the compleat inter and decorator, as well as for the chitect or the contractor employing n.

On the artistic side, the practical man ıy gather much instruction from the ıte illustrations, which, in addition to veral schemes of decoration (printed colours), contain several famous exam-s of interiors, of ceilings, of various les of decoration, such as Louis Seize, orgian, Late Renaissance, Hispano-resque. These examples are well osen and quite typical, as the specimen re shown will suggest, and constant erence to them, with gradually acquired power to appreciate their merits, will ultimately imbue the intelligent young craftsman with just notions of propriety and proportion in design, and of mastery in execution. For the novice, also, not the least useful among the plates are those showing various borders—classical and other—cartouches, panels, and similar details of decoration.

A thoroughly sound knowledge of practical methods, and a firm grasp of principles in craftsmanship, being among the most urgent desiderata of the times, this book, if it goes on as it has begun, will be happy both in function and in fulfilment. Conferring an equally distributed boon on architect, craftsman, and technical educationist, it is more than likely to assume rank erelong as a standard treatise, and one that was greatly needed, and should therefore be largely in request.

The Modern Painter and Decorator." A Practical Treatise on House, Church, Theatre, and Public Buildings Painting and Decorating. By Arthur Seymour Jennings and Guy Cadogan Rothery. With 96 full-page plates in black-and-white, and 12 in colour. Volume I. London: The Caxton Publishing Company, Limited, Clun House, Surrey Street, W.C. Price 22s. 6d.



AN AVMBRY FOR A LONDON CHVRCH DESIGNED BY PAVL WATERHOVSE.

Unknown London

As an addendum to his fascinating trilogy of books on London (" The Great Fire," " Unknown London," and " The Tower of London ") comes a new volume, " More about Unknown London," by Mr. Walter G. Bell. This book has obviously been written without any system or plan—it ranges from street cries to " ale conners "—but it is none the worse for that; indeed, its very irresponsibility is one of its greatest charms, wherein it is a truthful reflection of the great city from whose history and topography it derives its subject matter.

Though primarily a book for the general reader, it contains much that has a special interest for the architect. There is a chapter, for example, on the old printing house that still survives in Crane Court, Fleet Street, with its wonderful plaster ceiling which Professor Richardson, in a note quoted by Mr. Bell, ascribes to Wren; some interesting facts about the old Jewel Tower, near Westminster Abbey, and a short chapter on the Carmelite vault which, possibly unknown to a large number of architects and antiquarians, still exists beneath the pavement of Brittons Court, Whitefriars Street.

Mr. Bell has much to record of old London that is odd and entertaining, and much that is terrible and tragic. His chapter on the execution ground on Tower Hill is full of grim memories. Mr. Bell seems to have caught the very spirit of the old Tower, and he pictures vividly the scenes that were enacted on its blood-soaked hill.

These varied exerpts from the great story of London are full of charm; for, besides a profound knowledge of London, Mr. Bell possesses an easy and intimate literary style that makes reading a positive pleasure; and an added interest is given to the book by a number of excellent illustrations, several by our old friend Mr. Hanslip Fletcher. Here is a book that should appeal to all London lovers.

" More About Unknown London." By Walter C. Bell. London: John Lane, The Bodley Head. 6s. 6d. net.

Constructional Steelwork Data

Constructional steelwork being now, in one form or another, indispensable to most building operations, the architect who pretends to ignore it is among the missing. Steelwork, as every one knows, is a vital element in every important building operation; and whether or not the architect is expert in its use, he cannot specify without constant consultation of tables of data. Otherwise his prescriptions would be rather less safe than those of a doctor dispensing with (or, rather, without) the help of the Pharmacopœia.

Fortunately the tabular (not to say tabloid) form into which such data can be compressed ensures completeness without bulk. This fact is demonstrated strikingly and conclusively in the very neat little handbook in which Messrs. Archibald D. Dawnay and Sons, Ltd., have collected tables and data for the design of constructional steelwork. These data, as supplied by Messrs. Dawnay's technical staff, comprise every item that the architect would be likely to require in ordinary circumstances. Among them

are the dimensions and properties of steel joists for various spans, their safe distributed loads expressed in tons; and similar data are given respecting compound girders and steel channels. Working stresses in tons per square inch of section are given for steel stanchions or struts. Other tables relate, respectively, to steel joist stanchions, steel joist compound stanchions, steel channel stanchions, solid steel columns, cast-iron columns, tees, angles (equal-sided and unequal-sided), moments of inertia in various applications, shearing and bearing values for bolts and rivets of several kinds, weights and areas of flats and of round and square steel, and of corrugated sheets and galvanized-iron fittings.

There are appended many useful conversion tables (British and Metric), as well as a variety of useful data relating to floor-loads, building materials, and various substances such as sand, gravel, and cement; while further miscellanea include maximum span (in feet) for timber purlins, wind-pressure, and other useful memoranda; while in half a dozen pages towards the end of the manual particulars of the new British Standard sections are tabulated. Copious diagrams run through the booklet, which is further illustrated with interesting views of important structural works that have been executed by Messrs. Dawnay—e.g., the steel framework of the fine dome of the Wesleyan Central Hall, Westminster. Practical notes prefixed to every section complete the value of a most useful handbook; the least of its virtues—but one that is nevertheless worth mentioning—being its pocket size and weight.

A Handbook containing a Collection of Tables and Data for the Design of Constructional Steelwork. Computed by the Technical Staff of Archibald D. Dawnay and Sons, Ltd. 1921.

National Federation Summer Meeting

The eighty-seventh half-yearly meeting of the Federation will be held at the Royal Victoria Hotel, Sheffield, from July 26 to July 28, and an attractive programme has been arranged. The chief events will be :—

Tuesday, July 26

(to Executive Council and their ladies).

1.30 p.m., Luncheon at the Royal Victoria Hotel.

7.0 p.m., Dinner at the Royal Victoria Hotel.

Wednesday, July 27

(to all Delegates).

4.0 p.m., Visit to the Town Hall, at the invitation of the Lord Mayor (Ald. W. F. Wardley, J.P.), at which the Lady Mayoress invites the visitors to afternoon tea.

7.0 p.m., Reception by the President and Council of the Yorkshire Federation of Building Trades Employers, at the Cutlers' Hall, Church Street, to which all Delegates and their ladies are cordially invited.

Thursday, July 28

(to all Delegates).

9.30 a.m., Excursion into Derbyshire (including visit to Haddon Hall).

1.30 p.m., Luncheon at Grand Hotel and Hydro, Baslow.

Correspondence

Unfair Competitions

To the Editors of THE ARCHITECTS' JOURNAL.

SIRS,—In your current notes on this subject you are kind enough to comment favourably on the action which I took in drawing attention to the difficulty in dealing with unfair architectural competitions and in making what I hope is a practical proposal for avoiding these difficulties in the future. It is long ago since I first made the proposal for co-operation, and I revived it in the Press in March 1920, on a point raised by the Northern Architectural Association with the R.I.B.A. Competitions Committee, consideration of which was at that time shelved by the R.I.B.A. Council on the ground that as they were not the only body concerned they could do nothing in the matter, and that if all bodies were merged under one head it might be possible to do something. At that time I deprecated the shelving of the question pending the settlement of a problematical point which was not then even under discussion by the parties concerned.

Later in the year the President of the Northern A.A. in his address again touched upon the matter, and again I urged through the Press co-operation between the architectural bodies on certain lines, but without effect. In March 1921 the Council of the Society took up the matter officially and circularized the whole of the architectural bodies in Great Britain and Ireland, inviting them to join in giving effect to a certain course of action which, in the opinion of the Council of the Society, would define once and for all the position of architects being members of these bodies in relation to competitions, and regulate the procedure as well as the conditions of competitions.

I need not enter here upon the details of the Society's proposals, but will only say that they were sympathetically received in principle by those architectural bodies who gave them consideration, and the Institute referred them to their Competitions Committee for consideration and report. This report, which I have reason to believe favoured the Society's proposal in principle, was submitted recently to the Council of the Institute, and on July 11 they informed the Society that in view of the negotiations for Unification it had been decided to defer further consideration for six months. Of course, it is gratifying to the supporters of Unification to find that the Institute holds so optimistic a view on that subject, but once again I deprecate the further shelving of the question, the settlement of which has already been so long delayed that matters may shortly reach such a stage when it will be difficult, if not impossible, effectively to deal with it. It will be a great pity if the Society of Architects is forced in this, as it has been in other matters in the past, to take separate action, but it is very galling to an active Society to find a proposal which in principle must be generally acceptable to the majority of other interested parties, held up on grounds which, in my view, cannot be justified by a body which might and should long ago have tackled and settled the matter.

C. MCARTHUR BUTLER,
Secretary of the Society.

"Stunts and Standards"

To the Editors of THE ARCHITECTS' JOURNAL.

SIRS,—The criticism of "C. H. D." your issue of July 13 on my arti "Stunts and Standards" is beside t point. It is just the sort of attitude adopts to which I object. My point w and is, that there is grave danger in usi heresy to awaken lay interest in archit ture. In olden days they knew the dang and the heretic went to the stake. N he goes to the platform of the orthod The sort of interest which lectures li that of Mr. Roger Fry is likely to awak in the lay public is the kind architect should avoid at all costs.

CROSSLEY DAVI

Architects' Fees for Housing Schemes

To the Editors of THE ARCHITECTS' JOURNAL.

SIRS,—Architects sometimes compla that architectural bodies and Governme departments move too slowly, but view of the situation which has aris with regard to housing, architects appe this time to have a grievance against t Ministry of Health because that depar ment has moved too quickly in issui certain housing memoranda without wai ing for their ratification by the archite tural bodies concerned.

As the whole housing question is no in the melting-pot, is not the present good opportunity to commence *de nov* and in the light of experience gained the last few years to amend Clause 9 the Scale of Professional Charges relati to housing so as to meet existing cond tions, and to call upon the Ministry Health to honour its undertaking co tained in the following paragraph General Housing Memorandum No. 31 September 1919?—

"The conditions of engagement architects and surveyors shall be tho which are customary in their respecti professions, for example generally, suc as the conditions prescribed by t R.I.B.A. and the Society of Architects the case of the engagement of architects.

The Scale of Professional Charges i cludes conditions of engagement and t scale customary in the profession, an covers every point likely to arise in co nection with the professional work e trusted to architects, including housin and if an agreement could be come t with the Ministry of Health on the lin above suggested it would in my opinio put an end to difficulties arising (*a*) fro architects undertaking housing work fo local authorities under other condition of agreement or without any agreemen and (*b*) from the difference of opinio between architects and the Ministry Health as to the interpretation of Gener Housing Memoranda Nos. 4, 31, and 5 on which questions now arise, and th relation and application of the Scale Professional Charges and conditions engagement to the General Housin Memoranda.

C. MCARTHUR BUTLER,
Secretary of the Society

Current Architecture. 98.—Proposed New Hotel, York

S. Needham, Licentiate R.I.B.A., Architect



This design is particularly interesting as an example of simple straightforward planning. The aim in view has been to provide a thoroughly up-to-date house suitable for local needs and convenient both for manager and customers.

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The Whitgift Hospital: A Suggestion

By L. BROOK-PARTRIDGE

"EVERY effort should be made," declare the Editors of THE ARCHITECTS' JOURNAL in a footnote to ıy recent article on this subject, "to ɐeserve the Whitgift Hospital," and ɐey invoke to that end the combined ɨtion of the R.I.B.A., the London ɔciety, the Society for the Protection Ancient Buildings, and the Town anning Institute. Unfortunately, every ɨort is already being made, in certain ıarters, at least, to compass its de-ɾuction.

Some of the large London stores, it is ported, have for several years past been ıxious to obtain control of a big drapery tablishment in Croydon, *subject to ɐir being able to acquire the corner ɔperty*. The full significance of that ovision cannot be understood without e knowledge that: (1) the acquisition that property would link up premises, present divided, in George Street and orth End, and so make one of the most ɨtensive and most valuable corner sites Greater London; and (2) *that the rner property is the Whitgift Hospital.*

Thus we have the local authorities lking of a necessity for "very early ɐaling" with the position, and we have by no means negligible inducement to ıem to deal with it in a certain way in ıis prospect of a hugely increased rate-ɔle value. To one who knows Croydon is extremely difficult, as I have said, to ɾgue against those who declare the ospital to be in the way. In the ɾdinary course of the borough's develop-ɨent "something has to go," and the ıly hope I can hold out for this venerable d edifice is that the bodies named above ıould evolve some practicable scheme ıat would cost the minimum of sacrifice.

The motor road intended to divert ıain-road traffic from the centre of the ɔad is too hypothetical a solution of ıe quandary to be seriously considered t this stage; and a drastic proposal to ɾeate a rival to North End would probably rouse the keenest antagonism from arties whom it would be inadvisable to ffend. Thus we are left to Hobson's hoice—North End must be widened.

If the road is widened on the east side, short of leaving the Hospital as an island —which is impossible to contemplate—it must be removed. It has been suggested that it might be taken from its present site and rebuilt elsewhere on ground belonging to the Foundation. If that be decided upon, it is to be hoped that the fate of the Hospital will not be akin to that of old St. Mildred, in Poultry, the stones of which were taken for re-erection to Lincolnshire, where ultimately a few of them were used for a stable, and the rest lost.

On the other hand, it would be a thousand pities if the Whitgift Hospital shared the fate of another City Church—St. Antholin's—which the City Corporation pulled down to make room for the laying out of Queen Victoria Street, only to find that its destruction had been entirely unnecessary. My last remark, it goes without saying, presumes the possibilty of effecting the desired widening operations on the west side of the road; and without the least intention or desire to dictate either to the local authorities or to the organizations into whose particular province the consideration of this matter comes, I suggest that the Whitgift Hospital can remain, and that the widening of North End on the west —the Crown Hill—side is eminently practicable, both economically and architecturally.

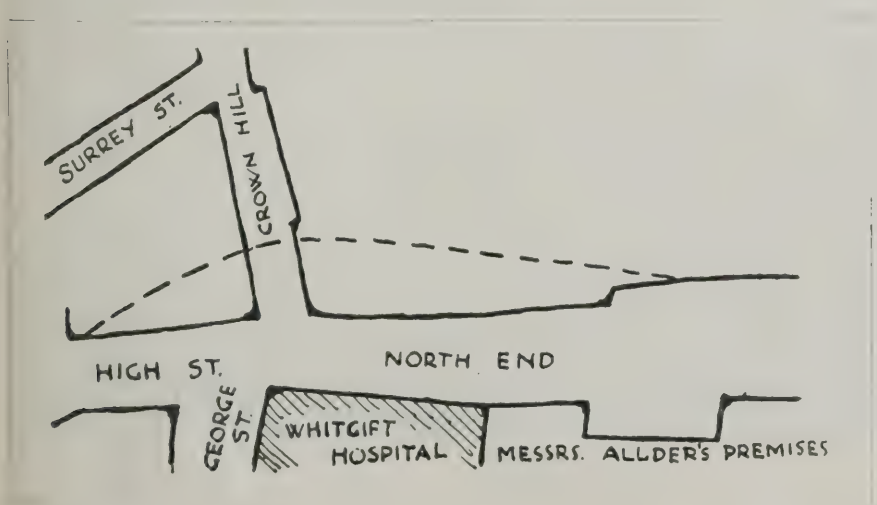
On that side, a few yards north of Crown Hill, the frontages of business premises project in much the same way as does the frontage of the Hospital, and for the same reason, that a large drapery establishment adjacent has set its own frontage back. Further, from the same point up to the crown of High Street, North End's continuation southwards, the road rises in quite an unnecessary hill, with a decline thence to a point just past the junction with Surrey Street. This portion of High Street was widened in 1896, and to overcome a rather big disparity between the heights of the two pavements half a dozen broad steps were built there to connect the two footways; these taper off in such a manner that they almost reach vanishing point at the corner of the two roadways. Thus Surrey Street has a good approach to the main road, whereas Crown Hill, which meets it at right angles opposite the Whitgift Hospital, has a steep declivity, and is altogether a dangerous turning—which is one of the most important factors in the problem of the Hospital.

My suggestion is that North End should be widened on the west side, being cut away from the point at which the frontages project in such manner as to provide an expansive arc-shaped widening between that spot and the General Post Office on the other side of Crown Hill—without touching that building. That would involve, doubtless, the closing to vehicular traffic of one of Croydon's ugliest and most dangerous thoroughfares—Crown Hill—and the diverting of its traffic, according to the direction required, along either Surrey Street or Frith Road, which are both favoured by drivers even now, particularly the former, on account of the danger of the hill. It would also entail the reconstruction of something under a dozen business premises—one a new building, a public house on the corner, the others all being fairly old and out-of-date places adapted in varying degrees to their present day uses as shops.

Regardless of other considerations, this part of the borough is anything but a credit to the town, and badly needs improvement. The reconstruction of these premises to form a bow or arc that would face the Hospital and would present a symmetrical aspect from George Street instead of the ugly death trap that is called Crown Hill, would be, to say the least of it, something to be thankful for. It may be objected that to set back North End and High Street at the spot I have indicated would create an even steeper declivity than now exists at the top of Crown Hill; but to that I would answer that Crown Hill for vehicular traffic is, as I have already said, a danger that might with advantage be wiped away, while, with very slight road-levelling, the main thoroughfare could be sufficiently lowered here to enable pedestrians to reach the lower level just as easily as they do from the other end of Surrey Street, and considerably more easily than they do by the long flight of steps which serves as a mid-way means of communication between High Street and Surrey Street via what is known as The Arcade.

Again, it may be argued that to send traffic through Surrey Street would necessitate the removal of the Saturday Market which is held there. In the first place Crown Hill is almost as much obstructed on Saturdays now as is Surrey Street; and secondly, since the Borough Council has frequently discussed lately the advisability of doing away with the market there, the idea is not such a revolutionary one as might be supposed.

Those who know Croydon, and can vizualize from my attempted description the form of widening I suggest, can hardly fail to see in it, I think, the germ of "a place of broad streets and stately buildings," such as the Archbishop of



The dotted lines in the above sketch-plan indicate a suggested form of widening to avoid demolishing the Whitgift Hospital. The plan, though substantially accurate, is not drawn to scale.

Canterbury foresaw in Croydon in the year when High Street was widened—and in the year, also, which saw the Tercentenary celebrations of the Hospital. If the widening could be carried out, indeed, along the lines I have tried to describe, the Whitgift Hospital, instead of being sacrificed for the development of the borough, would become an instrument to assist in its development; it would give an added air of dignity to what I dare to suggest could be made a noble work of architecture, and at the same time possibly the cheapest, simplest, and most adequate way out of a perplexing and persistently troublesome problem.

British Society of Master Glasspainters

The first general meeting of the above Society was held at 6 Queen Square, W.C.1, on June 28, the Right Hon. the President, the Earl of Plymouth, in the Chair, supported by Sir Cecil Harcourt Smith and Professor Selwyn Image, Vice-Presidents.

The President in his opening speech congratulated the Society on the progress they had made since the Certificate of Incorporation had been issued by the Board of Trade. Less than four per cent. of the master glasspainters approached had refused to join the Society. In addition to the Vice-Presidents attending the meeting, Sir Reginald Blomfield, R.A., Mr. J. W. Simpson, Past-Pres. of the Royal Institute of British Architects, and Dr. Montague James, Provost of Eton, had also consented to act. The Committee, who had been elected to draw up the constitution of the Society, had hitherto acted as a Provisional Council, and now offered themselves for election as Councillors as required by Article 47 of the Memorandum and Articles of Association.

In the meantime they had not been idle. A Sub-Committee had been appointed to enquire into the professional qualifications of all applicants for membership. Another Sub-Committee had been instructed to enquire into the present admittedly unjust conditions obtaining in competitions for stained-glass windows, and had made certain recommendations which would be laid before the meeting. A design being required for a Common Seal of the Society, all the glasspainters of Great Britain and Ireland had been invited to send in designs in competition, and a third Sub-Committee had been appointed to judge the designs submitted. At the invitation of the Worshipful Company of Glaziers two delegates had been appointed to confer with the Court of that Company and report on a scheme of technical education under consideration by the Company. Any further suggestions for the welfare of the handicraft would be welcomed from members of the Society.

The recommendations of the Sub-Committee on competitions having been read to the meeting were discussed at length.

Mr. A. Gascoyne (Nottingham) considered that a scale of minimum prices would meet the case. Mr. A. M. McLundie (Glasgow) considered action should be taken on the lines customary amongst Scottish glasspainters, and instanced the better prices paid for stained glass in Scotland. After discussion, the Hon. Secretary was instructed to circularise all members with the Sub-Committee report, and to invite further criticisms and suggestions. Mr. Gascoyne proposed and Mr. Glasby (London) seconded, "That the Provisional Council be elected again *en bloc*," which proposal was carried unanimously. Votes of thanks to the Right Hon. the President, the Council, and the Hon. Sec. terminated the proceedings.

R.I.B.A.

Following are notes from the minutes of the Council meeting of the R.I.B.A. held on July 4 :—

Architects and the Office of Works.—The Council approved the resolution of the Liverpool Conference on the subject of the Office of Works, and referred it to the Office of Works Committee.

The Associates' Committee.—The Council granted financial assistance to the Associates' Committee to enable them to consult provincial opinion on the proposals for Unification and Registration.

Provincial Representatives on the Practice Committee.—The Council acted on a suggestion from the Conference of Representatives of Allied Societies to appoint provincial members to serve on the Practice Committee and represent important areas in the United Kingdom.

Illegal Use of the R.I.B.A. Affix.—Three cases were reported to the Council in which architects who were not members of the Royal Institute had made use of the R.I.B.A. affix.

The General Council for the National Registration of Plumbers.—Mr. H. Searles-Wood, Vice-President, was appointed to represent the R.I.B.A. on the General Council for the National Registration of Plumbers.

The Dickins & Jones Building, Regent Street : Progress Photograph No. 5.



Higgs and Hill, Ltd., Builders

This photograph (published by courteous permission of the architects, Messrs. Henry Tanner, FF.R.I.B.A.) shows the condition of the work on July 8. Messrs. Moreland Hayne & Co. began the steel erection on June 24, and 320 tons had been fixed when the above photograph was taken. Earlier progress photographs were given in our issues for April 13 and 20, May 18, and June 22.

The International Union against Tuberculosis.—Mr. E. T. Hall (F) and Mr. W. A. Pite (F) were appointed to represent the R.I.B.A. at the International Conference of the International Union against Tuberculosis in London, July 26–28.

Meeting of Licentiates

At a meeting of the Committee of the Association of Licentiates R.I.B.A., held at the Institute on Friday, July 8, 1921, it was decided to request the President to meet the members of the Committee to hear their views on the questions raised in the President's address to the Liverpool Conference on the subjects of Unification and Registration.

R.I.B.A. Visit to the William Whiteley Village

The third of the series of visits arranged by the Art Standing Committee to buildings of interest in and around London took place on Saturday, July 16, to the William Whiteley Village Homes, near Walton, Surrey. "The Times" recently gave the following account of the village :—

The Whiteley Park and Village were created under the will of William Whiteley, who died in 1907, and left £1,000,000 to provide homes for aged persons. The men, it was stipulated, were to be over sixty-five years of age, the women over sixty. The trustees, one of whom is the Bishop of London, were given large discretionary powers over the benefits to be provided. Having received the last instalment of the capital of the legacy towards the end of 1910, the trustees found, in July 1911, a site on the ridge known as Burhill (formerly Burgh Hill), on the western slopes of the Mole valley. The village is some seventeen miles from Charing Cross, and two miles from Walton-on-Thames and Weybridge. The 225 acres it covers formed part of the Burhill Estate, which appears to have been included, in the time of Henry VIII, in Hampton Court Forest. Within recent years the property passed into the hands of Lord Iveagh, from whom the trustees made their purchase in September 1911. In the next year they bought the adjoining "Fox Oak," a private house standing in five acres of ground. The half-timbered house, commanding a view of the North Downs, is now used as the administrative headquarters of the park, the flower garden being open to the villagers.

It is a beautiful spot, well wooded with pine trees, undulating, and gay with heather. There are rhododendron walks, and many a quiet sylvan retreat. Of the open spaces one forms a recreation ground, another is devoted to allotments, and a third is a vegetable garden.

Several architects and surveyors have had a hand in the building of the delightful village that has arisen amid these surroundings. The lay-out is based on the design of Mr. Frank Atkinson, and has for the principal feature a central group in the form of an octagon. Five architects—Sir Aston Webb, Sir Ernest George, Sir Reginald Blomfield, Mr. Ernest Newton, and Mr. Mervyn Macartney—were invited to design the cottages, along with Mr. Atkinson and Mr. Walter Cave, who had already devoted themselves to making the village. The external materials were to be the same in each case; and the result is that the octagon group of dwellings varies harmoniously, the monotony too often the characteristic of an institution being avoided. At present there are 240 cottages for single persons, and 48 for married couples or sisters. Each of the eight sections of the octagon has a staff cottage in telephonic communication with the headquarters, and every cottage is connected by bell with the staff cottage. Among them is a Chestnut Walk (leading to the Chestnut Avenue), a Hornbeam Walk, a Heather Walk, and, of course, a Green. These give upon a circular road, the heart of the village, and in the centre stands a monument, sculptured by Sir George Frampton, R.A., in memory of William Whiteley. North, south, east, and west avenues intersect the village, meeting at the monument.

The open-air shelter ordained by Mr. Whiteley is being erected in a pleasant position at one end of the park. Market stores were opened as long ago as 1917. There is a post-office, a hall for "pictures" and plays, concerts, lectures, and work-parties, a hospital, a club, a home of rest, a library. Provision is made for villagers to invite their friends to a short stay with them, and also, by means of a motor-omnibus, for the villagers to get away themselves. There is a communal kitchen, with a restaurant. There is also a church, built from the plans of Mr. Walter Tapper. The metalled roads extend to three and a half miles, the gravelled paths to four miles.

The villagers number nearly three hundred. Each of them has had to satisfy the trustees that he or she enjoys an assured income of at least £19 10s. a year. The income of single persons must not exceed £60; the joint income of married couples must not be more than £75. The trustees provide water, electric light, fuel, a doctor, dentist, and nurses, and are empowered, at their discretion, to pay certain money allowances. The terms of the trust carry their liberality into the qualifications for residence.

University College School of Architecture

Following is a list of the awards for Session 1920–21 :—

LEVER PRIZE IN ARCHITECTURE :—
A. R. Dent.

DONALDSON SILVER MEDAL :—
A. G. Macdonald.

HERBERT BATSFORD PRIZE :—
J. B. Cooper.

ANDREW TAYLOR PRIZES :—
Third Year, S. Hyde.
Second Year, F. Jenkins.

RONALD JONES PRIZES :—
Second Year History, Mediæval, C. P. J. Fahy.
Renaissance, F. Jenkins.

The College Certificate in Architecture, recognized by the R.I.B.A. as exempting from the Intermediate Examination, has been awarded to the following :—

Gwendolen M. Adshead, H. G. Blizzard, G. T. Brown, R. J. Bunce, W. C. Childs, V. G. Cogswell, G. A. Crockett, E. E. Edmunds, C. P. J. Fahy, G. H. Fielder, M. C. Glover, F. Jenkins, J. L. Kelf, E. Kirby, A. L. Knott, O. W. H. Law, H. Lewin, Breta G. Merrylees, R. J. R. Minty, S. L. Palmer, P. N. Parker, L. F. Shroff, J. R. M. Simpson, L. L. T. Sloot, E. R. Taylor, Katharine M. Wallis, O. M. Welsh, T. J. R. Winn, F. T. Winter.

Latest List of New Inventions

Latest Patent Applications.

17271.—Hitchins, C.—Machinery for manufacture of concrete, etc., slabs, blocks, etc., for building, etc. June 24.

17303.—White, P. J.—Concrete building blocks. June 24.

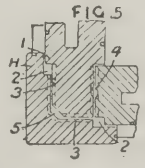
Specifications Published this Week.

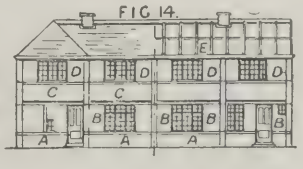
164858.—Brampton, F. W.—Flooring and like tiles.

164947.—Bell Bros., Ltd., and Kirby, M. R.—Concrete buildings.

Abstract Published this Week.

162845. — Concrete buildings. — Armstrong, J. G. D., 18 Broomgrove Road, Sheffield.—Stud-and-slab buildings are built of precast monolithic reinforced slabs, three courses being employed for a one-story building and five courses for a two-story building, such slabs extending from cross wall to cross wall, or from pilaster to pilaster, or from window to window, no vertical joint showing on the external wall except at a pilaster or other vertical projection. The slabs are hoisted into position by machinery. Fig 14 shows a two-story building having five





courses A, B, C, D, E. The slabs and pilasters are jointed by means of grouting poured into holes H, Fig. 5, and grooves 4, the jointing surfaces having shoulders 1, rabbets 2, indents 3, and splays 5. Door jambs are made of concrete and have a wide rabbet on the jamb remote from the hinge to take varying sizes of doors. The slabs are preferably moulded in metal moulds, and in the case where different qualities of concrete are used for inner and outer faces, a dividing-sheet is placed in the mould and worked up and down to amalgamate the two concretes. The slabs may be solid or have continuous vertical cavities which are closed at window and door openings by covers.

The above particulars are specially prepared by Messrs. Rayner & Co., Regd. Patent Agents, of 5 Chancery Lane, London, from whom readers of this journal may obtain all information free relating to patents, trade marks, and designs. Messrs. Rayner & Co. will obtain printed copies of the published specifications and forward on post free for the sum of 1/- each.

Enquiries Answered

Bungalows and By-laws.

"Ajax" writes: (1) What jurisdiction has a public authority in respect of the erection of one-room, or day, bungalows, as long as they are used as such and not for sleeping in? In this instance the local authority made the by-laws for buildings not being constructed of incombustible materials. These by-laws were approved by the Local Government Board, 1913, which are of pre-war date.

"(2) If an owner proceeded and erected a one-story day bungalow—1,260 cubical capacity of walls, timber constructed and lined with cement and asbestos sheets, on a site that was nearer than 15 ft. (stated in clause IV) from another timber constructed building, and nearer than 10 ft. (clause V), and not being in the same curtilage, would the local authority have power to order its demolition or pull down the building, if so, under what act or law?"

—(1) The only buildings usually exempted from the operations of the by-laws are "such as come under the description orchard-house, summer-house, poultry-house, boat-house, coal shed, garden-tool house, potting-shed, cycle-shed, or aviary. The proposed building is clearly intended for "human habitation," and so comes under the usual by-laws—drawings must be submitted and passed by the local sanitary authority.

(2) Yes, the public authority have powers to order its removal if erected without the passing of plans by them, and under the Public Health Acts may insist upon its removal.

I advise the submission of plans before any building work is undertaken; local authorities are much easier to deal with in many respects than they were in pre-war days.

F.S.I.

Acquisition of Land for Housing Schemes

The following General Housing Memorandum No. 53 has been issued by the Ministry of Health:—

1. In view of the fact that the arrangements for the acquisition of land for housing sites are already in advance of the requirements for the building work likely to be put in hand in the immediate future, local authorities should not at the present stage incur further commitments in regard to sites without previous reference to the Housing Commissioner.

2. It is therefore requested that the local authority will obtain the specific authority of the Housing Commissioner:—

(*a*) before completing the purchase of any site for which negotiations have been completed, but for which no binding contract has been entered into;

(*b*) before obtaining valuations or undertaking negotiations for the acquisition of new sites for housing purposes either directly or through the Valuation Office.

3. The Council should also consult the Housing Commissioner on the question whether existing negotiations, either directly or through the Valuation Office, should be continued.

4. In cases where a compulsory order has been made and confirmed, but no notice to treat has yet been served, the Housing Commissioner should be consulted before any further action is taken. If he concurs that the land in question will not be required for the purpose of the assisted scheme, the persons who have been served with notice of the order should be notified that the local authority do not propose to exercise their powers. In any such cases where the local authority may have requested the Valuation Office to re-open negotiations, the Valuation Office should be rqeuested to break off these negotiations.

Trade and Craft

Concrete Houses at Dagenham.

The "Winget" houses, which are playing their part in the London County Council's vast building scheme at Dagenham have been visited by the Institution of Municipal and County Engineers. Three block-making yards have been organized for these houses by Messrs. C. J. Wills and Sons, the master contractors for the whole undertaking. One of the machines there, the "Winget 32" Standard, makes, among other blocks, those of the rock-faced texture which are being used in some of the most effective types to be seen at Dagenham—or Becontree, as the new suburb is named. It is extremely interesting to watch the various operations—the mixing with the chain-spade mixer; the aggregate and cement immediately converted into blocks of various sizes by the attendant machines; the carrying away to the stacking-ground, where the blocks are left to mature; the removal of the matured blocks from another part of the depot to the building site; and the buildings themselves in all stages of construction. Many of the "Winget" houses are already roofed and completed with rough-cast, but they are seen to best advantage where the walls are going up with the textured face left to speak for itself.

"Fullolite" and "Daylight" Lamps.

The Edison Swan Electric Company, Ltd., of Ponders End, Middlesex, have sent us a copy of their new leaflet dealing with "Fullolite" and "Daylight" gas-filled lamps. In the Royal Ediswan "Fullolite" lamps the bulbs are made of opal glass, the opal bulb completely eliminating the glare effect and providing a good diffusion of light, thus obviating any undue strain upon the eyes. These lamps are particularly suited for home and office lighting, and are also extremely useful to shopkeepers, etc., who are accustomed to dressing their windows with unshaded lights. In the Royal Ediswan "Daylight" lamps a bulb of a special colour glass almost wholly absorbs the red rays emitted by the filament, the resulting light providing illumination the properties of which closely resemble the north sky light. Each lamp is a complete unit in itself, only needing to be put into the existing holder on the circuit, thus simply replacing the clear glass lamp previously used. This lamp will be found invaluable to artists, dyers, textile manufacturers, and for shop lighting, etc., where the accurate matching of colours is essential.

Cardiff Technical College

A party of students from the Department of Architecture at the Technical College, Cardiff, accompanied by the head of the Department, Mr. W. S. Purchon, M.A., A.R.I.B.A., and the assistant lecturer, Mr. R. H. Winder, M.A., A.R.I.B.A., visited Rhiwbina Garden Village, on the afternoon of Tuesday, July 12. Mr. Alwyn Lloyd, F.R.I.B.A., architect, and Mr. Gilbert, clerk of works, conducted the party round the village in which about 100 houses in various stages of construction are to be seen. Considerable interest was taken in the planning of the various types of houses, in various methods of effecting economy in construction, in the simple but effective architectural treatment of the individual houses, and in the grouping of them into a harmonious whole. The pleasant relationship existing among the various grades of technicians and workers was very noticeable, and has doubtless been a factor that has helped considerably in the excellent progress made with this housing scheme.

Waygood-Otis Sports

The pleasant eight-acre ground of the Waygood-Otis Club, at Whitefoot Lane, Bromley Road, Catford, was on Saturday, July 9, the scene of the twelfth annual sports and garden party, in which members of the staff and employees of the well-known firm of lift manufacturers participated. The event was probably the most successful of its kind ever held in connection with the club. There were three more races in the programme than last year, and an increase of 50 per cent. in the entries, the total being 540.

The chairman of the company and other members of the directorate were present, and the prizes were distributed by Mrs. D. W. R. Green, who was presented with a bouquet of roses. Dancing followed the prize-giving, and for this the band of the 1st Cadet Battalion King's Royal Rifle Corps provided the music. A selection was also played during the afternoon.

Coming Events

July 20.

Builders' Benevolent Institution.—Annual General Meeting, 48 Bedford Square, W.C.1. 4 p.m.

July 26—July 28.

National Federation of Building Trades Employers of Great Britain and Ireland. Eighty-seventh Half-yearly Meeting, Royal Victoria Hotel, Sheffield.

Competitions Open

For particulars of competitions open—North Wales Heroes' Memorial (July 23), Wolverhampton War Memorial (August 13), New Park for Wandsworth (Sept. 5), Birmingham Hall of Memory (October), and New Hospital Buildings, Cairo (October 3)—see ARCHITECTS' JOURNAL for June 29. The sending-in day for Dunoon War Memorial is July 30, and Greenock War Memorial closes August 1. The Herefordshire and Sutton Coldfield War Memorial competitions are banned.

The Week's News

Newington Sessions House.

The new Sessions House at Newington, it is now estimated, will cost £185,378 to erect and equip—over £6,000 more than was estimated in July, 1919.

264 Houses at Drumoyne—New Glasgow Scheme to cost £240,339.

The Scottish Board of Health has approved of the estimates of the Director of Housing for Glasgow for 264 houses at Drumoyne, amounting to £240,339.

War Memorial at Prestonpans.

Rapid progress is being made with the erection of the war memorial at Prestonpans. Mr. Birnie Rhind, R.S.A., Edinburgh, is the architect.

The Late Mr. J. M. D. Peddie.

The late Mr. John More Dick Peddie, Edinburgh, a well-known Scottish architect, has left personal estate valued at £25,089.

Kitchener Memorial.

The equestrian statue of the late Lord Kitchener to be erected on the Horse Guards Parade is to be carried out by Mr. John Tweed.

Elland Town-planning Scheme.

The Elland District Council has decided to go forward with its scheme of town planning, approving the draft plans of Mr. Carby Hall, of Leeds, the town-planning surveyor.

New Town Hall Protest.

Called by the Islington Ratepayers' Association, a public meeting passed a resolution protesting against the proposal to erect a new Town Hall at a cost of £350,000.

Gift for Manchester University.

The Manchester, Salford, and District Employers' Association has raised a sum towards the endowment of a Chair of Architecture, and also proposes to endow a travelling scholarship in that subject.

Inverness and Granite.

The Inverness Town Council has decided to pave the streets of the Highland capital with granite setts—from Norway. The difference between the contract prices for Aberdeen granite and Norwegian granite is stated to be over £4,000.

Gift for Chiswick.

The Duke of Devonshire has given land at Chiswick for the building of eight homes of rest for local soldiers and sailors. These are to be erected by funds raised locally, the amount already subscribed being between £8,000 and £9,000.

Reinforced Concrete Roads.

The esplanade and carriageway at Southsea, which are about 2,700 ft. long by 18 ft. wide and 3,940 ft. long by 40 ft. wide, respectively, have been re-surfaced with reinforced concrete. The concrete in both cases was 6 in. thick, the reinforcement used in the construction of the esplanade being B.R.C. fabric No. 14 and the carriageway B.R.C. fabric No. 9.

Hotel for Rosyth.

Dunfermline Dean of Guild Court has approved of plans prescribed by Rosyth Hotel Association, Ltd., for the erection of a modern hotel at Rosyth Garden City. The business is to be conducted on Gothenburg lines.

Dalkeith War Memorial.

A war memorial was unveiled at Dalkeith by the Duke of Buccleuch. It is of Gothic design, 24 ft. in height, built of Doddington stone, with granite panels. The architect is Mr. James P. Alison, F.R.I.B.A., Hawick.

L.C.C. Contracts.

The London County Council has decided that, save in exceptional circumstances, all firms with whom the Council enters into contracts must be on the King's Roll—the honours list of employers whose staffs include five per cent. or more of disabled men.

L.C.C. Hall.

It is understood that the County Hall at Westminster will not be ready for occupation until 1923. The L.C.C. is getting on, however. A model has been approved showing the design of the seating for the Council Chamber.

Welsh M.P.'s and the Housing Problem.

At the housing conference for the Welsh region, at Llandrindod Wells, resolutions were passed demanding a forward policy, urging the Ministry to extend the period for housing schemes till 1924, and asking the district executive committee to consider how economies in building could be effected, particularly with regard to inflation of prices.

Housing Scheme Prepared and Refused.

The Rhyl Council, with the approval of the Ministry, have bought land on which to erect workmen's dwellings, but the Ministry now decline to sanction the erection of fourteen houses for which plans had been prepared. The liability of the Council, it was stated by the clerk, in connection with the housing scheme was over £10,000.

Concrete Institute Membership.

According to the last anuual report of the Council, the membership of the Concrete Institute at the end of April 1921 was as follows:—Members 869; Hon. Members 16; Associates 14; Associate Members 161; Special Subscribers 4; Graduates 4; Students 70; Total Membership 1,138. Of this total 420 reside in London and its environs, 376 reside in the provinces, and 342 abroad.

" Ken Wood " for the Public.

Active steps are about to be taken to endeavour to secure the famous Ken Wood Estate in Hampstead Lane for the use of the public for ever, for there is a danger that this beautiful estate, which comprises more than 220 acres, may pass into the hands of builders for commercial development. A Preservation Council has been formed, upon which the Mayors of several North London Boroughs have been appointeed.

Woodcote Park Golf Club.

Lady Coats, wife of the M.P. for the Winbledon Division of Surrey, unveiled on July 9 the memorial erected by the club to twelve of its members who fell in the Great War. The memorial takes the form of an overmantel to one of the club's fireplaces. It is of a simple classic order, executed by Messrs. G. and A. Brown, Ltd., of Hammersmith, from the design of Messrs. Bourchier, Tatchell, and Galsworthy, FF.R.I.B.A.

New Pictures at the National Gallery.

Two additions have just been made to the French pictures at the National Gallery. Sir Philip Sassoon has lent his " Reading from Moliére," one of the masterpieces of J. F. de Troy, signed and dated 1740. It is now hung in the room XXI at Trafalgar Square. In Room XX will be found an attractive " Portrait of a Lady," recently purchased out of the Temple-West Fund. Neither the name of the sitter or the painter has yet been identified.

Changes of Address.

Mr. Edwin J. Dod, A.R.I.B.A., notifies his change of address from Exchange Buildings, Liverpool, to 51 North John Street, Liverpool. His new telephone number is Bank 3479.

Mr. Henry J. Chetwood, F.R.I.B.A., has transferred his office from 5 Bedford Row to 1 Montague Street, Russell Square, W.C. 1. Telephone: Museum 196.

The London Press Exchange Ltd. have now changed their addresses to 108–111 St. Martin's Lane, London, W.C. 2.

Extensions to Gateshead Children's Hospital.

The extensions to the out-patient department of the Gateshead Children's Hospital, of which the foundation stones were recently laid, are in the grounds to the north of the administrative block, to which they are attached by a covered corridor. It consists of a central waiting hall, round which are grouped the various examination rooms, X-ray room, etc. The materials are brick walls, finished inside with glazed brick dados, and all floors are of marble terrazzo. The architects are Messrs. Fenwicke and Watson, of Emerson Chambers, Newcastle, and the contractors are Messrs. R. Stephenson and Sons, of Low Fell.

New Companies.

We are indebted to the courtesy of Messrs. Jordan and Sons, Ltd., Company Registration Agents, Chancery Lane, W.C.2, for interesting particulars of companies registered during the half-year January to June 1921, which show a great decrease in number compared with the corresponding period of 1920. They include 55 brick and cement producing companies, 98 builders, 59 electric and gas undertakings, 191 engineers, 190 iron and brass, 56 land, and 48 timber. The depressing effect of the quadrupled Capital Duty is shown in the decreased capital of new companies, which averages but £16,719 as against £69,951 last year.

Housing Progress in Scotland.

The following figures show the progress that has been made in State-aided housing schemes in Scotland to June 30, 1921: Permanent houses completed, 2,018; temporary houses completed, 510; reconstructed houses, 67; houses built under the Private Subsidy Scheme, 584. Total, 3,179. There are, also, 11,967 houses under construction, of which 1,618 are being built by private persons with the aid of the Government subsidy. The total amount of grant paid by the Scottish Board of Health in respect of the 584 houses completed under the private subsidy scheme is £142,173 6s. 8d.

The Late Mr. James M. Monro.

It is with great regret that we announce the death of Mr. James M. Monro, F.R.I.B.A., which took place at the age of 81 at Saxonholme, Bearsden. Articled to Mr. John Henderson, Edinburgh, he served with architects there and in London, and after three years with the late Mr. Spence in Glasgow he started business in 1868, and continued actively until two years ago. A past president of the Glasgow Institute of Architects, and for two years a member of Council of the R.I.B.A., he carried on an extensive practice in domestic and commercial work. In 1903 he took his son into partnership.

An Architectural Award.

The Honan travelling scholarship of the Liverpool Architectural Society has been awarded to Mr. E. W. Martin, a student of the Liverpool University School of Architecture, and a graduate of the University of Pennsylvania. The subject was a design for a cinema theatre to accommodate 1,000 persons.

R.I.B.A. Extension of Premises.

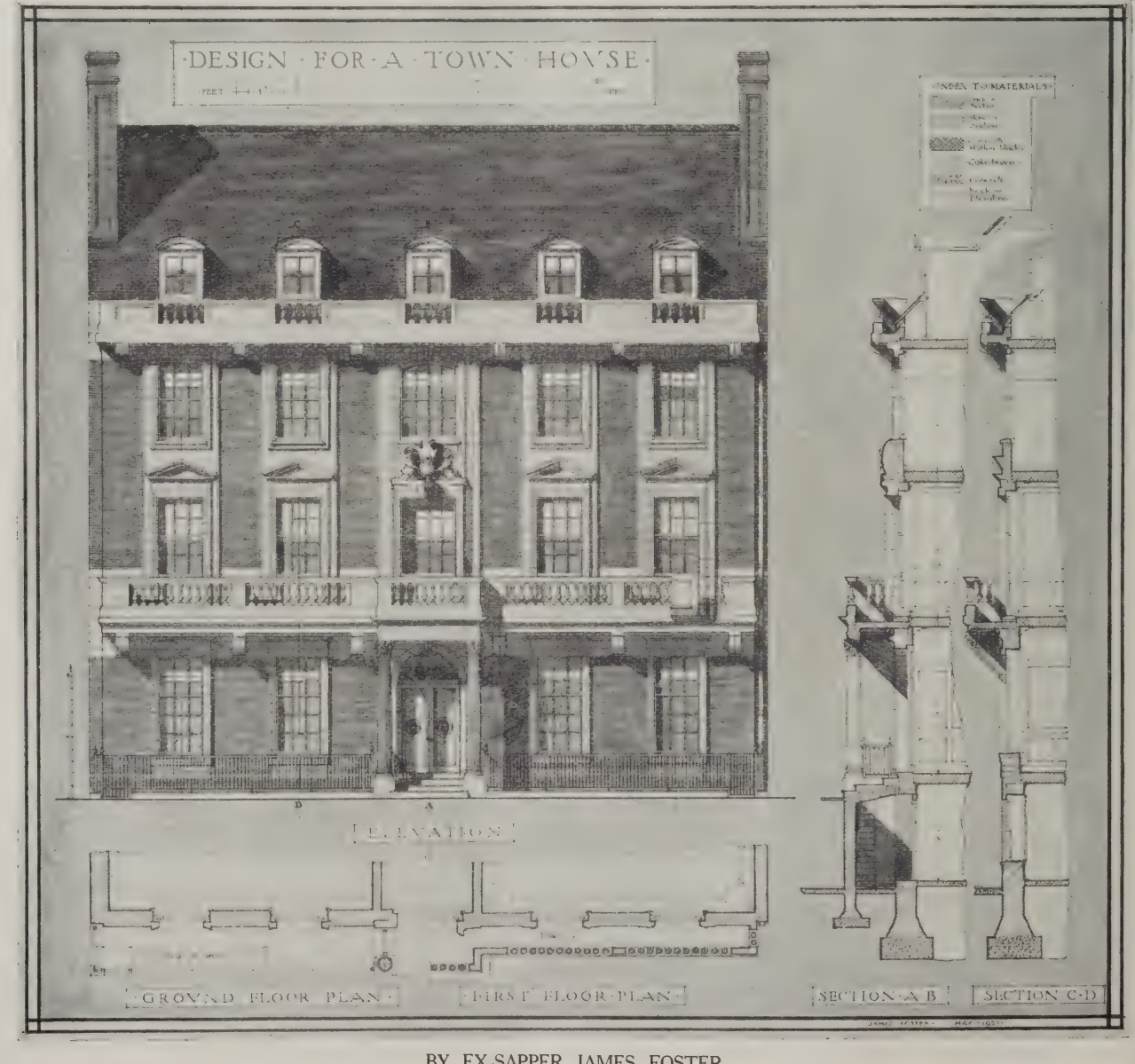
The Council of the R.I.B.A. have just purchased the Corporation leasehold of No. 10 Conduit Street, London, W. The leasehold is perpetually renewable without fine, and is therefore practically equal to a freehold.

Partick and Whiteinch War Memorial.

Designs are invited for a war memorial to be erected in Victoria Park, Whiteinch, on the site of the present sun-dial, at a cost of about £2,000. It is suggested that the memorial take a monumental form, massive, simple, and dignified, but alternative designs with symbolical figure may be lodged. Premiums of £20 and £10 are offered for second and third designs. The successful competitor will get the work, but no premium. The committee will be advised by a competent architectural assessor. Drawings (which will be returned) and estimates should be sent, not later than August 27, to the Honorary Secretary, James Arthur, 173 Byres Road, Glasgow, from whom further particulars may be had.

Architecture and the ex-Service Man

Some time last year Mr. C. Ernest Elcock, F.R.I.B.A., informed the head master of the York School of Art that he would be glad to give an ex-soldier a complete architectural training, provided he was a keen fellow and really interested. To Mr. Elcock was introduced ex-sapper James Foster, who, to some extent incapacitated through the war, had been studying at the School of Art in a more or less casual manner for about six months. His pre-war occupation was that of a joiner, and he had not previously had any acquaintance with draughtsmanship. Below we reproduce an original design by himself, which is entirely his own work, subject, of course, to criticism and correction as the design developed. It seems to be such a specially excellent piece of work for a man who has only been studying architecture for about eight months, that it is well worth showing, as an encouragement to other ex-soldiers, and also as a stimulus to other professional men to do something for the men who have suffered in the war.



BY EX-SAPPER JAMES FOSTER.

Wednesday, July 27, 1921. Vol. LIV. No. 1386

THE ARCHITECTS' JOURNAL & Architectural Engineer

With which is incorporated "The Builders' Journal"



ANDREA PALLADIO. (1518-1580)

Palladio, born in 1518, was the son of a carpenter named Pietro, who worked for the scholar and poet Gian Giorgio Trissano. The boy became the protégé of his father's employer, who gave him the name of Palladio, later to become indissolubly connected with a distinctive style in architecture. His first work was the Palazzo Godi at Lonedo in 1540, and in 1545 he presented four designs for the reconstruction of the basilica of Vicenza, a work which was begun in 1549. A long series of palazzos followed, with the famous Rotonda Villa, a church façade, and a cloister. Palladio's writings formed the most authoritative exposition of the principles of classic architecture of the seventeenth and eighteenth centuries, and he has given his name to a classic style noted for its cold and correct purity of form.

27-29 Tothill Street, Westminster, S.W.1.

Equestrian Monument to King Edward VII, Waterloo Place, London

Sir Bertram Mackennal, M.V.O., A.R.A., Sculptor



Photo: Topical.

The above memorial of King Edward VII was unveiled last week by King George, who subsequently conferred the honour of knighthood upon the sculptor, Mr. Bertram Mackennal, of whom a portrait appears on a later page.

THE
ARCHITECTS' JOURNAL
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The National Housing Bubble

NOW that the National Housing bubble has burst, wonder is rife as to why it was ever blown. For a time its iridescence was pretty and pleasing. No doubt the National Housing and Town-Planning Council would willingly and plausibly account for the inflation, and would profess to find much more difficulty in explaining the collapse. This admirably philanthropic society may be excused for hugging the brief but delicious delusion that it had enlisted the Government on the side of the angels. Governments never can tear themselves completely away from the side of the politicians, who, generally speaking, belong to a very different order of beings—always excepting Dr. Addison, who made the tremendous mistake of supposing that his colleagues were as enthusiastic as himself in the more benevolent aspects of housing. He saw health in it—the abolition of C3 houses and the prevalence of A1 physique. Their ethereal vision was partly obscured by the obtrusion and irrelevancies of the ballot-box.

It is only fair to acknowledge, however, that the Government could not keep up with Dr. Addison. He made the pace much too hot for them. Hence his removal from the Ministry of Health, and finally his resignation from the Government. Nor could they anticipate the deplorable economic contingencies which dogged an enterprise which it is now much easier to see than it was at the onset that they never ought to have undertaken, whether at the instigation of the National Housing Council, or as a means of posing—with a very considerable element of sincerity in the pose—as friends of the people, and especially of ex-Service men, at the last general election.

Yet housing was a matter of urgency in which the nation was entitled to look to the Government for some sort of help. Mr. Hayes Fisher (afterwards Lord Downham) plunged into the subject with a tremendous splash. His vigour was undoubted, but his skill was in question; and there is no doubt that Dr. Addison, in following him, found himself amidst dangerous breakers. To give him full credit, Lord Downham had done little else than issue propagandist circulars to local authorities, and it was from him or from his advisers that Dr. Addison caught the rather mean trick of trying to transfer to others the responsibilities that rightly belonged to their originator. It is doubtless a thoroughly sound principle that the functions of Government should be regarded as purely legislative; but, having very flagrantly departed from that principle by assuming the control not only of housing, but also of labour and materials, it was cowardly in the State to shirk the logical issue. Yet it threw on the local authority the onus of borrowing money, of meeting as well as ascertaining the local building requirements, and, further, of deciding what was "luxury building," and of diverting from it the labour. In fact, Lord Downham bombarded and bewildered the unfortunate local authorities with circulars to such an extent as to create a suspicion that the need for paper economy must have been greatly exaggerated, howsoever the case may have stood with the alleged house famine—which also was not under-estimated by the politicians, as the more objective calculations of the Registrar-General subsequently revealed. Wild figures had been advanced. We must have half a million houses by an early date—houses fit for heroes to live in—and their production must by no means be hindered by diverting materials and labour to other classes of building. Having tightly ligatured the main arteries of the industry, the Government soon saw reason to complain that—who would have thought it?—the circulation was sluggish, and that the industry was suffering from many unhealthy symptoms, including a sort of creeping paralysis, and a hectic tendency towards phenomenally feverish prices. It became an open question whether Dr. Addison was President of a Ministry of Unhealth. Certainly the State had unwittingly prepared a soil and created an atmosphere in which abuses were likely to flourish as vigorously as Government said they did; though here again there was exaggeration, the whole great industry being maligned because a few of its members were thought to be keen on serving reprehensibly selfish ends.

The more closely the history of this unfortunate national housing movement is examined, the more easy it becomes to give the Ministry of Health full credit for all the virtues except foresight. Unquestionably Dr. Addison meant well. He wanted to build rapidly and well, but, like Lord Downham, he could not foresee what lions would beset his path. How could these amateur builders predict the shortage of labour, its phenomenally high cost, the continuous rise in the price of materials? Above all, neither President could predict the coal crisis and its duration, nor the frenzied public demand for strict economy in administration. Let us be perfectly fair. It is to the tremendous set-back to national prosperity caused by the protracted idleness of the pits, coupled with the people's newspaper-fomented yell for parsimony, that extinction of State interest in national housing should be attributed. Dr. Addison, and Lord Downham before him, committed Government to a policy that, after the coal-mine idleness and all the financial disaster it implied, they could not, even with the best will in the world, afford to sustain, especially amidst the severe fit of "economy" that is now convulsing the country. To put the gist of the thing in a nutshell, the State had shouldered a burden it could not carry, and it has dropped it rather abruptly. Whether the State is the more to be blamed for adopting it or for assuming it is a question that may be left to confound the casuists.

What is distressing about the sudden suspension of the Government effort for housing may be summed up in the dismal expression, "Disappointed hopes." We were repeatedly encouraged to hope for "more and better houses." We have not got them. Dr. Addison no doubt hoped to regenerate his country by filling it with wholesome dwellings. He has not succeeded. Architects had hoped to have at length the opportunity to impart to common dwellings a modicum of architectural character,

and in this modest aspiration they have been thwarted. Large staffs of architects and other building experts that have been got together in Government departments are being, or are about to be, dispersed, to resume their interrupted careers as best they can. They should receive "compensation for disturbance." Local authorities find themselves encumbered with land which they had been encouraged by the Government to purchase, but on which, failing Government support, they cannot now hope to build. Lastly, but chiefly, the hope of the people to have a full supply of decent dwellings at a fair rent has been cruelly disappointed. We will not join those who say that the people have been "betrayed," because, as became evident quite early in this movement, ultimate failure in it was inevitable.

The one bright ray of hope that emerges through the gloom is the final proof this fiasco has afforded of the utter incompetency of the State to control civil industry. With its competent munition work it won the war, but the case was fundamentally different. There we had the people pulling together whole-heartedly and quite regardless of expense. The object was not to balance the ledger, but to beat the enemy; and it is now plainer than ever that the State can perform the one feat but not the other. It should take the lesson to heart, and shun bureaucracy, keep off industry, and repent in sackcloth and ashes for the widespread calamity that must ensue from its misguided interference with housing, making reparation where it can, particularly towards those architects who are likely to suffer severely through trusting to its persuasive promises.

The housing debate which took place in the House of Commons last Thursday brought but little grist to the mill. At times it degenerated into the expected political wrangle, the contestants seeming more anxious to score off each other than to discuss judicially the subject of national housing. Consequently the debate left the main issue where it found it. A subsidiary point, raised by Mr. Clynes, should be pressed home on the Government. Said Mr. Clynes, who constantly gives fresh evidence that he is one of the most humane as well as one of the most sagacious and statesmanlike members of the House: "If the scheme was to be abandoned, most of the officials would not be required. Many of them had got a month's notice. Surely that was not a reasonable way to treat men, many of whom gave up permanent positions when asked to undertake this service two years ago. Their notices, he suggested, ought to be extended till the autumn, as at present there was little opportunity for employment in municipal and other public services." It should be extended even further than that; but in mere justice Government should give the utmost heed to Mr. Clynes's very modest request.

Timber Economy

There are at least three excellent reasons for planting timber-trees in Britain. They are: that the world's stock is perilously near exhaustion; that imported timber gets steadily poorer in quality and dearer in cost; and that in war-time disaster might attend dependence on foreign sources of supply. It follows, therefore, that the activities of the Forestry Commissioners deserve all the commendation and encouragement they are likely to receive from our short-sighted rulers, and much more also. In the first annual report of the Commissioners some idea of the stupendousness of the demand for timber in war-time is conveyed in the startling statement that the timber consumed by the British Army in France between 1915 and 1920 "cost the country at least £190,000,000 more than a similar amount of wood would have cost at 1909–13 prices," and the Commissioners hazard the estimate that for the period 1915–30 our timber will cost us from £400,000,000 to £600,000,000 beyond the pre-war amount for a similar quantity of timber. It is, therefore, to some extent, reassuring to be reminded that Parliament, before the economy scare set in, had voted three millions and a half sterling for the encouragement of forest industries, including the purchase and planting of land. Not very much can be done with such a sum beyond making a beginning with a project that before long should see enormous developments, considering how grave a national peril would arise from shortage of timber supplies in war-time. Economy of our resources should include not only the planting with timber every yard of land that would otherwise produce nothing but weeds, it should imply strict economy in the use of this growingly precious material, which in times past has been most shamefully wasted, a habit or tradition surviving from the times when wood was cheap and plentiful. In particular, the railway companies are the worst of wood-wasters. If they will not or cannot make of some less easily exhaustible material—say concrete—their millions of sleepers, they should be made to grow it themselves on the many miles of neglected land that border their singularly primitive tracks.

Moor Park, Swift, and Stella

Among the many fine historic houses that are being put up for sale so numerously that it is now possible for the first time to realize with something like adequacy how surpassing rich this country is in such wealth, Moor Park, Surrey, is among the latest to attract attention. It was the house of Sir William Temple, who had its garden laid out "in the Dutch style," and who employed Jonathan Swift there as his secretary. Swift wrote there "The Battle of the Books" and "The Tale of a Tub," and there acted as tutor to the beautiful child Stella, who formed such a romantic attachment for him. Whether he afterwards married her in Ireland, whither she followed him when he became Dean of St. Patrick's, is a perfectly opaque issue; but in Moor Park still stands the fine old mansion in which the romance began: How humiliating to reflect that a man's work endures so much longer than his life and his loves! Yet what an inspiration to the architect!

The Costs of Road Maintenance

Lord Montagu of Beaulieu is to be congratulated on the public service he has rendered by writing his series of articles (which have just been brought to a conclusion in "The Times") on road reform. He has dealt judiciously with every important phase of the question, on which he is, of course, a first-rate authority, more especially from the point of view of the motorist. It is the motorist who has set the civil engineer so many knotty problems to solve, and it is only just that one of the fraternity should assist in their solution. He should not stop short, as he usually does, at grumbling incessantly about the state of the roads which he wears down or breaks up. If he were more often to emulate Lord Montagu in studying the question as a whole, and giving us the benefit of his impartial judgment upon it, with the important addendum of his practical knowledge and experience, the community would have more reason to listen to him with patient attention. As Lord Montagu very aptly observes, the two most important problems before the road authorities of this country are, first, the engineering problem of how to make roads fit for the traffic of to-day and the much greater traffic of the future, and, secondly, the financial problem of how to pay for construction, reconstruction, and upkeep of roads.

With respect to finance, he makes the astonishing, but doubtless well-founded, statements that "the cost to-day of constructing a secondary road, only 12 ft. wide, with proper hard metalling and a surface fit to carry modern traffic, cannot be put down at less than £5,000 a mile (5,280 ft.), or about £1 a foot run—a very economical estimate." Indeed, he puts the expense still more appallingly. "I should be inclined," he says, "to estimate that the roads of Great Britain are worth to-day £7,500 a mile as a minimum on the average, or about 30s. a foot run, irrespective of width." Lord Montagu's fairness in demanding a more equitable distribution of the burden of maintenance is no less conspicuous than the ability with which he has handled the technics of his very topical subject.

Sir Charles Ruthen and the Housing Policy

IN an interview which Sir Charles Ruthen, F.R.I.B.A., P.S.A., Director General of Housing under the Ministry of Health, accorded a representative of THE ARCHITECTS' JOURNAL, Sir Charles set forth the reasons why the present Ministry had departed from the policy initiated by Dr. Addison.

The building industry, Sir Charles said, had been overloaded with work which it could never have carried out in the time proposed, and the common statement that limitation of housing schemes will lead to fewer houses being built in the next twelve months is not accepted. It is considered that, having regard to the supply of materials and all the other factors, the 176,000 houses to which the local authorities are to be limited would not have been exceeded in any case. There are, in addition, 24,000 or 25,000 houses to be built by private builders. Of the total of 200,000 houses, 60,000 have been built, and the bulk of the remainder are expected to be finished within the next twelve months.

The Government is commonly accused of having allowed the local authorities to incur expenditure and of having then left them in the lurch. On this point it is stated definitely that any local authority that has incurred expenditure with the approval of the Ministry will be "seen through." This expenditure is on such things as the laying out of the sites for schemes that are now scrapped. Such work, whether it has been begun or only "in hand," will rank for a grant under the scheme on the well-known conditions.

The object of the Ministry in scrapping contracts that have already been made is to relieve the taxpayer of unnecessary expense, and to use the margin obtained for providing houses where they are urgently needed on cheaper terms. Many of these contracts were entered into when prices were at the very top. The general idea is to give the preference to schemes for house-building in industrial centres where there is the greatest overcrowding. It is well known that prices have come tumbling down since the new policy was announced, and Sir Charles was confident that there would be still further drops. Builders are now offering to put up parlour houses with three bedrooms for £700 or £750. Seven or eight months ago the price would have been £900 to £1,000.

As things are, the local authorities' schemes that have been passed will cost the State about £10,000,000 a year, which will continue so long as the loans are outstanding and subject to a future reduction in the rate of interest. There is, in addition, the £5,000,000 paid in subsidies to private builders.

Sir Charles did not agree that the losses to architects were as heavy as suggested, and said that the payment they had received or would receive for the work already done would be ample compensation. Of course, their fees would be nothing like what they would have been had the whole of the schemes gone forward, but then they would not have had to do anything like as much work. He was aware that many architects laid stress upon the point that the getting out of the plans and quantities was the biggest part of the architect's job, for which, if the work did not go forward, he got paid least; but in the case of housing schemes Sir Charles said that he felt certain that the planning and other office work was light compared with the daily supervision of, say, 1,000 houses spread over perhaps three or four villages.

Many architects had found these schemes heartbreaking work. Here they had to consider carefully the price of every brick. An extra course in the foundations would mean perhaps an extra of £250 on the whole of the contract, and the difference between the specifying for 2-in. door and 1¾-in. door, though it might appear as an item of only a few shillings in one house, when applied to two or three thousand houses would become an altogether staggering figure.

He and his colleagues in the Ministry were prepared for a great deal of grumbling from architects who found themselves with work taken out of their hands, but generally architects had done very well indeed out of Government housing—though of that side, of course, architects said nothing.



Photo Russell & Co.

SIR BERTRAM MACKENNAL, M.V.O., A.R.A.

Sir Bertram Mackennal.

It seems but the other day that Mr. Bertram Mackennal was getting noticed in the newspapers as "that rising young Australian sculptor, Mr. Bertram Mackennal." So much good work has he done that his Australian birth is usually forgotten (which is almost a pity, seeing the prestige that nowadays, and especially since the war, attaches to everybody and everything Australian, not excluding a peculiar brand of cricketer), and he is regarded as one of our leading British sculptors. Sometimes in association with eminent British architects (Sir Aston Webb and Sir Reginald Blomfield, for instance), and sometimes working alone, he has steadily gone on producing piece after piece of admirable sculpture, each of which, it may be said, has been "a stepping-stone towards higher things," since Sir Bertram, as we shall now delight to call him, never goes back on himself, but always forward with each successive work. His equestrian statue of King Edward VII, unveiled by King George in Waterloo Place last Wednesday, is certainly to be counted among the most successful of his modellings. The likeness of the king is strikingly faithful, and the charger is full of life and spirit. A more unfortunate site, however, could hardly have been selected. King Edward stands alone in dignity and achievement, and he should not have been set up among the warriors and explorers in Waterloo Place, but should have been accorded a finer and less crowded site, in which case Lord Napier of Magdala need not have been sent to some unknown destination.

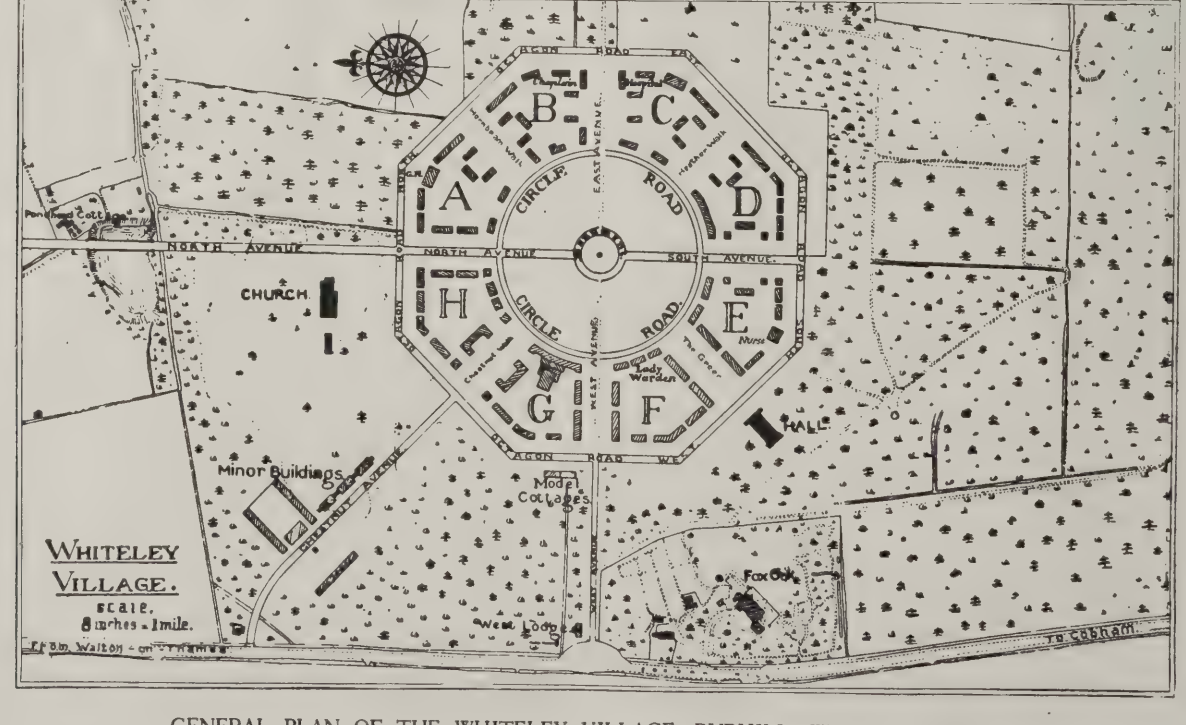
Architects and the Housing Fiasco

EFFICIENCY in statesmanship has long since been replaced by expediency, and principles must give way to opportunism; but it is doubtful if even the records of recent political adventures can show such an extensive betrayal as that which has taken place in connection with the abandonment of the Government's housing policy. Placed foremost on a programme of post-war reconstruction, the country was given to understand that the National Housing Scheme would be prosecuted in face of all difficulties and opposition. A general disillusionment has now taken place. The general public, the contractor, the building operative, the professional man, members of housing committees, of borough, urban, and rural councils—all who have given the enterprise their support (and many have worked with unremitted zeal for two years to make the scheme a success) now find that their labours have been in vain. Much of the work was voluntary; much of it deserves, and rightly expects, adequate remuneration; but the Government has decided that wherever possible this shall not be forthcoming. It must pay for its 373 million surplus bricks, it must pay builders with whom it is breaking contracts large sums *not to build* the houses for which the nation clamours, but it can and it does refuse to pay the architect for his two years' work, on a scale that even approaches adequacy.

Despite the statements that have so frequently been made by architects who were able to retain their practices during the war, there is little doubt that the inauguration of the Government's housing programme afforded a welcome opportunity for the young demobilized architect, who, if he had already started a practice, had abandoned it to fight for his country. The older generation of architects, secure with an influential connection, seems to have failed to realize the enormous difficulties with which the younger men were faced, otherwise it is difficult to account for its continued hostility to a scheme which appeared to enable many of its less fortunate brethren to earn their livelihood upon their return from the war.

Employment for architects under the housing scheme presented itself in two ways: there were salaried posts in the Ministry of Health or with various municipal bodies, and there was work for the private outside architect employed by the municipality in the usual way. Architects who were engaged by the Government were given to understand that as the period allowed under the Housing and Town-Planning, etc., Act 1919, during which local authorities might prepare schemes for which State aid would be forthcoming, extended until July 31, 1922, their services would be required at least until that date, and probably for a considerably prolonged period required for the settling of accounts and the like. As eleven regional offices (subsequently increased to twelve) were opened in various centres all over England and Wales—four offices only being situated in London—many men were posted away from their homes, which, on the strength of an assurance of at least three years' employment—subject to satisfactory service—they disposed of, and acquired new ones, often, on account of the housing shortage, being obliged to buy where they could ill afford to do so. They are now informed that their services will no longer be required; yet this is a year before the expiration of the period mentioned in the Act. The work at the regional offices has been extremely strenuous, entailing often much overtime, for which, of course, no recognition is made. It is no exaggeration to say that these architects have been instrumental in saving the country millions of pounds by suggesting more economical plans, by checking over-generous specifications, and by recasting layout plans so as to economize in road-frontage, in widths of roads, and in sewers. In many cases men who were offered responsible posts relinquished municipal appointments which they then held, to take service under the Government; but the services of almost the entire technical staff are to be dispensed with, and the department concerned makes no effort to find work for these men elsewhere. No private employer would to-day have the audacity to treat employees who had served him to such good purpose in a similarly shameful manner.

However, the outside architect has in many cases fared even worse, yet few realize the extent of his unceasing output of energy for a period of two to two and a half years. Any architect who has had experience with both private and public employers will know how far more exacting becomes his task with the latter as a client. He will know how local intrigues, local politics, changes of policy, municipal by-elections, may be the constant cause of more work for him, and each change or reversal of a previous decision may entail the preparation of a fresh set of plans. In the course of his two and a half years' work he will have inspected numerous sites, surveyed them, and advised his council or housing committee upon their suitability; he will have prepared key-plans to the scale of $\frac{1}{2500}$ and lay-out plans to the scale of $\frac{1}{500}$, perhaps for as many as twenty sites scattered over an area of 500 square miles; these he will

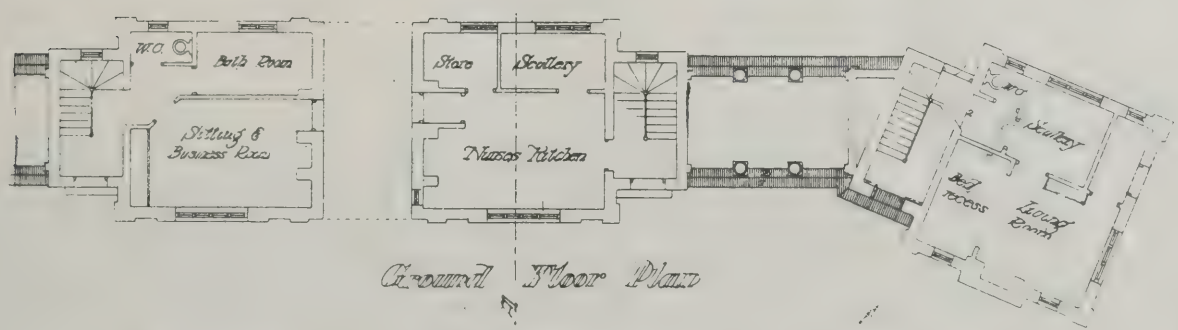


GENERAL PLAN OF THE WHITELEY VILLAGE, BURHILL, WALTON, SURREY.

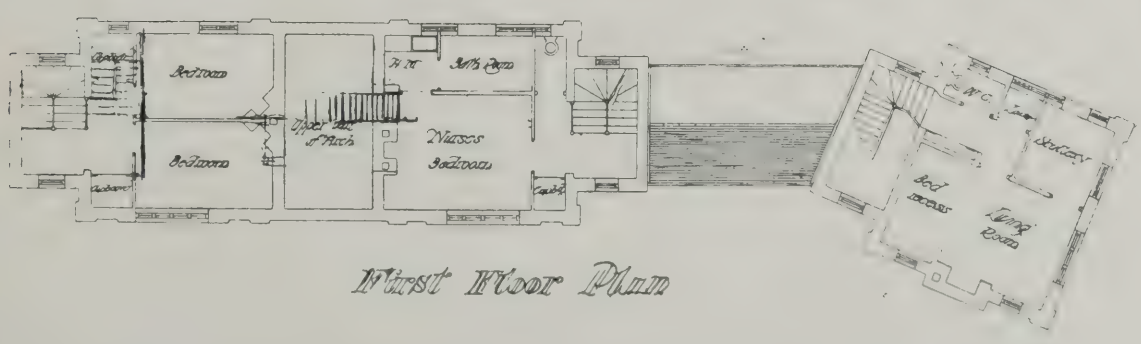




Elevations



Ground Floor Plan



First Floor Plan



NURSES' HOME, THE WHITELEY VILLAGE, BURHILL, WALTON, SURREY.
SIR REGINALD BLOMFIELD, R.A., ARCHITECT.

have submitted to the Ministry of Health, who will doubtless have insisted upon certain alterations, requiring perhaps the redrawing of the plans, he will have filled in numerous forms in duplicate to accompany the plans—also in duplicate—to the Ministry. There will very likely have been difficulties in connection with the drainage, the Ministry obstinately insisting upon water-tight cesspools and the council insisting upon something else, and upon the architect will fall the onus of a protracted negotiation entailing numerous visits to the regional office and attendance at a similar number of committee meetings. Where the architect undertakes work on new roads and sewers his task will become heavier. His council will require a certain width of carriageway, and the Ministry will inform him that "this cannot be admitted as a charge against the assisted scheme account." And so he finds himself once more between the "devil and the deep sea."

But this is as nought compared with the probable difficulties in connection with the house plans. After endless discussions the approval of the housing committee and the council will be obtained. Then the plans are sent to the Ministry for approval. After considerable delay—due to pressure of work—an interview or a letter from the regional office will intimate that certain alterations are required. When these requirements have at last been met and approval to the plans has been received, always "subject to a satisfactory price being obtained for the erection of these cottages," tenders are invited. They are too high. The skinning of the house then begins, and is continued until the building is but a shadow of its former self. But the price persists at a figure that the Ministry will not recommend, so the plans are scrapped and a fresh set prepared and the business starts again. At last the tenders may be accepted, and work is begun on, say, an instalment of 25 houses out of a scheme of 150. Then comes a letter from the Ministry saying that the remainder of the scheme is to be abandoned. This is a fair account of the work of many an architect spread over a period of two to two and a half years, deserving, one would think, proper remuneration. But the Ministry, realizing that there would be masses of abandoned work all over the country, repudiated this scale of charges under G.H.M. 31, and issued a new scale contained in G.H.M. 52. The loss of fees which this scale entails to architects who had not previously entered into a special arrangement with their local authority for abandoned work (and but few will have taken this precaution) will best be appreciated by considering a definite example.

The fees for the layout plan remain unaltered, and for a scheme of 150 houses will bring in for the first 25 houses £25, for the next 75 £37 10s., and for the remaining 50 £18 15s., making a total of £81 5s. For the roads and sewers, under G.H.M. 31, the fees would be for the first 25 houses £50, for the next 75 houses £75, and for the remainder £37 10s., making a total of £162 10s. These fees are for work for which quantities have been prepared. If the work is abandoned £108 6s. 8d. will be paid. Supposing that 25 out of the 100 houses are built, the fees will amount to £128 15s. It is, however, in the fees for the houses that the greatest reduction occurs; 150 houses at, say, an average cost of £900 each would, under G.H.M. 31, entitle the architect to £540 on the first 12 houses, £1,350 on the next 60, and £1,053 on the remainder, making a total of £2,943. Supposing that five different designs were included (and the mere alteration of a larder to suit the changed aspect is not sufficient to be included as a separate design), and no houses were built, the fees would amount to £225. It is impossible to comment on such an insulting arrangement, by which H.M. Government offers £225 for two and a half years' professional services. The logical conclusion deducible from this payment is that £2,718 represents the value of supervision and the issuing of certificates, while the preparation of plans and the obtaining of tenders is worth only £225, which is absurd. If 25 houses out of the 150 are built the fees amount to £540 for the first 25 houses, and £292 10s. for the remaining 13, making a total of £1,012 10s., and a grand total of £1,222 10s., instead of £3,186 15s., for the whole undertaking. It is quite possible that with a local authority that has been particularly dilatory, and has therefore given its architect unusual worry and anxiety, and whose scheme is now altogether abandoned, an architect may find himself receiving £414 11s. 8d. for a scheme of 150 houses, where, had the scheme, for which he has prepared all the drawings, specification, and obtained tenders, been executed, he would have obtained £3,186 15s. The architect is, indeed, being ground between the upper and nether millstone. H.J.B.

The Whiteley Village

In our last issue a brief account was given of the Whiteley Park and Village which have been created at Burhill, near Walton, Surrey, under the will of the late William Whiteley, who left a sum of £1,000,000 to provide homes for aged persons. In this issue we show several views of the village, which is the work of a number of architects—Sir Aston Webb, Sir Ernest George, Sir Reginald Blomfield, Mr. Ernest Newton, Mr. Mervyn E. Macartney, Mr. Frank Atkinson, and Mr. Walter Cave. Mr. Atkinson, besides designing certain groups of cottages and the very charming entrance lodge and gates which are illustrated on page 10, was also responsible for the general lay-out, which has for its principal feature a central group in the form of an octagon. The village is a perfectly complete entity including a delightful little church by Mr. Walter Tapper, a post office, a hall for "pictures" and plays, etc., a hospital, a club, a home of rest, a library, and a communal kitchen with restaurant. It will be recalled that members of the R.I.B.A. recently paid a visit to the village.



COTTAGES AT THE WHITELEY VILLAGE, BURHILL, WALTON, SURREY.
WALTER CAVE, F.R.I.B.A., ARCHITECT.

Current Architecture. 99.—The Whiteley Village, Burhill, Walton, Surrey : West Lodge and Entrance Gates

R. Frank Atkinson, F.R.I.B.A., Architect



In the design of the Whiteley Village a number of prominent architects took part, including Mr. Frank Atkinson, whose delightful lodge and entrance gates are shown above. Some brief particulars of the scheme are given on page 100.

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Correspondence

Unification and Registration

To the Editors of THE ARCHITECTS' JOURNAL.

SIRS,—You will no doubt have seen the notice in the Press to the effect that the Committee of the Association of Licentiates R.I.B.A. has requested the President to meet it to discuss certain points in the President's address to the Liverpool Conference. The Committee feels, on the one hand, that it would not be in the interest of Unification to raise general discussion until more fully informed of the President's views, on the other hand many members are anxious to be assured that the Committee is considering the points raised, which are of vital importance to members of the Association.

I am requested to inform you that the Committee will consult with the general body of members at any time they receive guidance before taking action; but it does not think that any good purpose can be served by the expression of views until more definite proposals are brought forward.

The representatives of the Licentiates have taken part in the discussions which have led to the adoption of a scheme as the foundation upon which it is hoped to build up Unification, and have effectively served the interests of all classes by their agreement with the representatives of others in the acceptance of the scheme.

It is hoped that members of the Association will carefully consider the reports of what has been achieved, and will hear with patience what is to be said from all points of view, and that even the appearance of sectional differences may be avoided by refraining from public discussion of details more satisfactorily dealt with by reference to the Unification Committee.

The Annual General Meeting will be held in October, when it is hoped that a more definite report may be made to the members of the Association.

Members are requested to communicate to the Secretary any views upon the question of Unification, or other questions affecting the profession, which they think should be dealt with by the Committee.

SAMUEL G. SHORT,
Hon. Sec.

The Qasr el Aini Competition

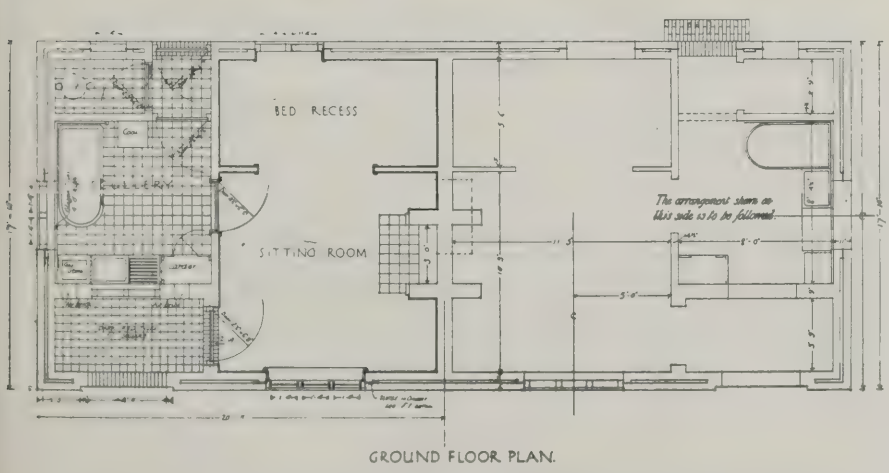
To the Editors of THE ARCHITECTS' JOURNAL.

SIRS,—In your issue of November 3, 1920, a "World Wide" competition for a hospital in Egypt was announced. Your JOURNAL, and also the newspapers, have been scanned for further announcements, and in a Brisbane paper of June 7 it is stated that our Premier has just received the information that designs are invited, and that conditions can be had on application to the R.I.B.A., London, or the authority in Cairo, the designs to be delivered somewhere not later than October 2, 1921. How very humorous! A letter from here takes about four weeks to Cairo, and the conditions will be back in another four weeks, which, with loss of time between mails, takes us to the middle of August. Then if the designs are to go to Egypt we will have two weeks to complete, but if to London perhaps a few days. *World Wide competition indeed!*

Yours faithfully,
ALEXANDER MCKEE.

Brisbane, Australia.





GROUND FLOOR PLAN.

COTTAGES AT THE WHITELEY VILLAGE, BURHILL, WALTON, SURREY.
ERNEST NEWTON, R.A., ARCHITECT

Enquiries Answered

Wood-worms in Oak: Calculations for Reinforced Concrete.

"Student" writes: "(1) Is there any method of killing wood-worms in oak? (I have an oak chest which is becoming worm-eaten.) Would carbolic acid effect this, and do you think it would bleach the wood? Also, can you tell me of a 'filler' which will fill the worm-holes to provide a good surface for polishing?

"(2) Is the treatment of B.M.'s and calculations for continuous beams possible without the use of higher mathematics? And can you recommend a book which deals with this matter in regard to reinforced concrete?"

—(1) It is often best to get rid of worm-eaten furniture, for fear that it may similarly affect other articles in the same room.

The killing of the wood-worms may certainly be accomplished by the injection of corrosive or other liquids—common paraffin being as good as anything—but it is a very tedious process.

Ordinary wax as used for hand-polishing furniture is as good a filler as anything.

(2) Many of the treatises on "Building Construction" help one considerably in the principles upon which calculations are based, and without going very deeply into mathematics one may ascertain the margins of safety which should be allowed in a building. Rivington's "Notes on Building Construction," Volume 4, have not yet been beaten in this respect.

"Stresses and Thrusts," by G. A. T. Middleton, published by Batsford at 4s. 6d., might give you the information you need.

Mr. T. Potter's book on "Concrete and its Use in Building," published at 7s. 6d., is the best treatise of which I have knowledge.

I suggest you get B. T. Batsford's Catalogue of Technical Publications from 94 High Holborn, London, or from the publisher of this Journal, from whom all the books mentioned may be obtained.

Various papers have been read before the learned societies upon the modern practice of reinforced concrete, but I know of no special treatise on the subject.

F. S. I.

Mr. Brangwyn's Etchings

EVERY architect ought to see the architectural etchings of Mr. Frank Brangwyn, R.A., now on view in the library at 29 Tothill Street. The tribute of a great Master of Art to the Mistress of all the Arts, they are both an inspiration and a joy. No one can resist their appeal. There is in these plates all the nobility, all the dignity, all the massive strength of fine buildings finely designed. Architecture here is seen in her most splendid mood.

Here, too, the artist has given to architecture an intensely human note. It would not be Frank Brangwyn's work if it were otherwise. Buildings are put up for men. Without the worshipping crowd the cathedral, however magnificent, is not complete. Unless the ever-moving sea of human life beats up against their walls the most famous old houses of Ghent are but as empty tombs. No bridge that ever spanned a river has meaning if never from its arching roadway echoes the tramp of human feet.

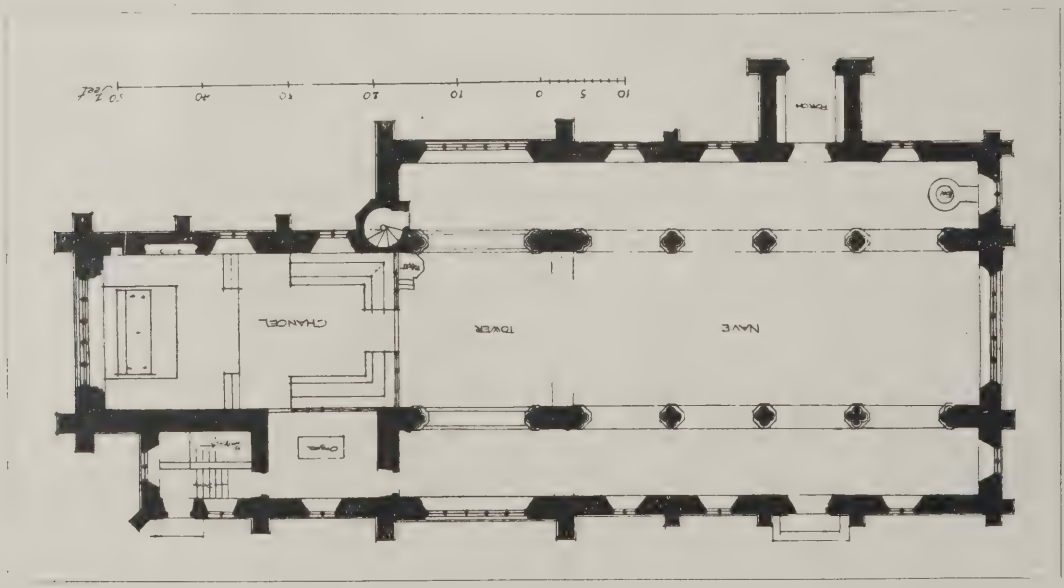
This is the greatness of architecture. It is its crowning glory. No art of man has ever given to man such sterling service. It is the shrine of history. Here, in documents of marble and of stone, is written the story of civilized man. Though against the mighty towers of Notre Dame in Paris man seems but puny, it was the mind of man that planned them, and the hand of man that built them. And for the use of man were they designed. Though the high arches of the great Albi bridge seem far above the reach of man, yet were they born of the brain of man. They are no more—and no less—than crystallized thought. And to-day, over these mighty spans, pass the children of men, with never a thought for the wonder and the romance of it all.

Here in these eleven etchings may be seen the epic of mankind. There are many wonderful stories here, graven in metal. There is, for one, the romance of the splendid abbey of St. Leonards, which lies near to Tours. Built in the great times of Gothic purity, it fell at last on evil days, as so many churches did in France; and the splendid fane which once had been the scene of many glowing pageants of the Church became a farmer's dwelling-place and granary. Where once mitred bishop and lordly abbot preached to the people of the Bread that feeds the soul, was stored, in the materialistic nineteenth century, the bread that feeds the body. Here is history in little, if you like. And now, rescued at last from its unkind fate, the Government of France has claimed it as a national monument. And so it ought to be, for it is a very fine building. The capitals of the columns of the ambulatory are sculptured and coloured, and thanks to the fact that this part of the abbey was used to store corn, these rare relics of a fine architectural period remain in an almost perfect state. The etching shows these capitals, and they well deserve notice. Mr. Brangwyn has given us a most impressive and sympathetic view of this grand survivor of a great past. Towering above the peasants, who are enjoying a rustic fête beneath its massive walls, this splendid poem in stone strikes the imagination like a giant of the past. With a rare instinct the artist reminds us of the fact that past and present are one, that life and architecture are indivisible. The noble abbey represents the tradition out of which has sprung the spirit of to-day. And the human figures that dance and dally under the abbey walls tell us, too, of the days gone by, when to the peasants of the district the abbey and all for which it stood was the pivot of their lives. This etching is not just a simple sketch of an arresting subject. It is an allegory of architecture, full of vigour and of vision. There is in it more than the eye can see. There is in it more than the pen can spell. Yet the architect who loves and reveres his art will feel, if he cannot tell, all the moving appeal of this opulent plate.

So let us pass on to the equally rich and glowing etching of the famous and historic church of Our Lady of Eu. Here, again, the artist brings architecture into its proper and close relationship to human life. Outside this magnificent monument to an Irish saint the people are crowding to a fair. The figures dance and caper with a joyous abandon that almost sets one's feet moving to the rhythm. There is real life here. It is no counterfeit jumping of the styles. The scene is strongly, freely festive. The men and women seem as if they could dance out of the frame and invite you to join them in their merriment. It pulsates. It compels. And behind this riot of joy the old church looms, with its age-old call to prayer and fasting. Here, again, is a parable. Here, again, is the story of man. And yet the carnival crowd does not seem incongruous. It recalls the scene in Sterne's "Sentimental Journey," where the old French peasant and his family dance after supper to show their gratitude to Providence. And it sums up, in one powerful episode, the whole spirit of the people of France—that spirit blended of sadness and of sparkle which the fair and the church together symbolize.

Again, there is this striking contrast in the etching of St. Peter of the Exchange, Genoa. Here is told the old, old story of the money-changers in the temple. It is a crowded, stirring scene. It throbs with life. With arresting subtlety the artist brings before us the piquant vision of a picturesque religious procession passing through a throng of traders. And, remote, supreme, the old church looks down upon the moving mass of men, a reminder and a reproof, the symbol of man's highest hopes, lovingly wrought in imperishable stone by clever craftsmen.

And so one could find in all these powerful etchings new parables and new inspirations. In the fine drawing of St. Nicholas, Dixmude, there is, too, a pathetic interest. It was a church well known to architects, and it had the most beautiful rood-screen in all Belgium. Now it is no more. It has passed, like



PLAN OF THE CHURCH AT THE WHITELEY VILLAGE, BURHILL, WALTON, SURREY.
WALTER TAPPER, F.R.I.B.A., ARCHITECT.

Modern Ecclesiastical Architecture. 13.—St. Mark's Church, The Whiteley Village, Walton, Surrey

Walter J. Tapper, F.R.I.B.A., Architect





Mr. Tapper's church at the Whiteley Village is a simple and dignified little building, designed on traditional lines, and perfectly adapted to the small community which it serves. Some brief notes about the village are given on page 100.

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so many architectural treasures of Belgium, beneath the ponderous and merciless wheels of the Car of War.

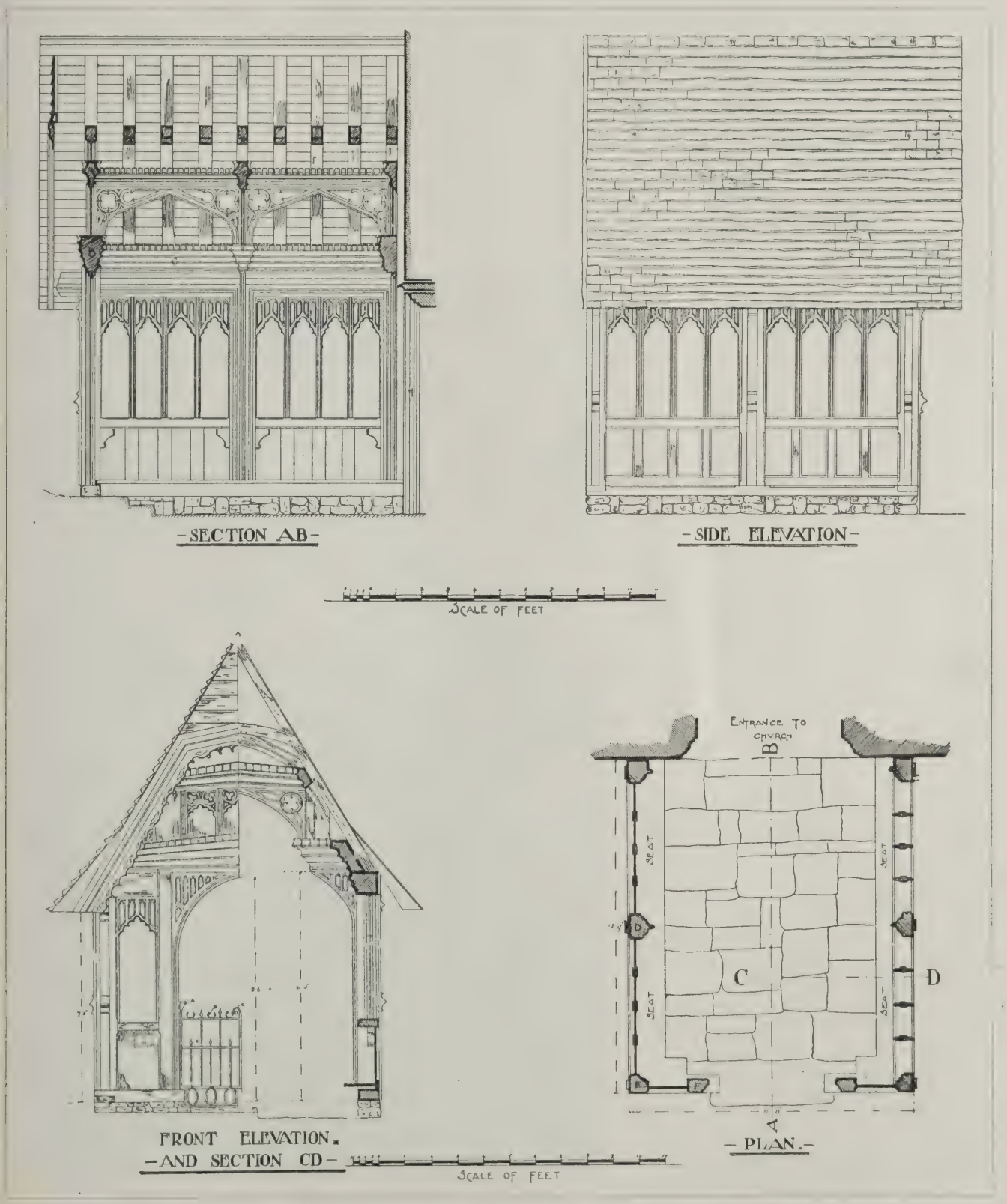
There is little space left in which to write of the impressive view of the great arch of the bridge of Albi which spans the River Tarn in France, or of the wonderful perspective of "The breaking up of the 'Duncan.'" And no more than a mention can now be made of the Mosque of Constantinople, the famous Pont Neuf of Paris, the striking version of Cannon Street Station, London, and the beautiful and unique coloured etching of the Santa Maria della Salute, Venice.

Meanwhile, it may be worth while to add a word as to the almost uncanny way in which Mr. Brangwyn gives us by a rich suggestiveness the sense of both the material grandeur and the spiritual significance of great architecture. And he does it without strain, without bringing into his art any element foreign to his subject. He does not drop reality for the sake of romance, but romance is to be found behind and inspiring the uncompromising reality of these memorable etchings. They are always true to life, but they give us both sides of the shield of truth. They show us both the body and the spirit of architecture.

CROSSLEY DAVIES.

Oak Porch, South Benfleet Church

The village of South Benfleet is situated seven miles west from Southend-on-Sea. The Church of St. Mary the Virgin is built of stone, mostly in the Perpendicular style, consisting of chancel, nave of three bays with clerestory, aisles, south porch, and western tower with low shingled spire containing a peal of five bells. The south porch, by far the finest piece of work in the whole building, dating from the year 1430, is in an excellent state of preservation. It is built entirely of oak



OAK PORCH, SOUTH BENFLEET CHURCH, ESSEX. MEASURED AND DRAWN BY SIDNEY C CLARK

on a stone rubble base; the floor is composed of rough stone slabs, and is 10 in. below the level of the ground. The roof is covered with red tiles, the eaves overhanging a considerable distance. Two wrought-iron gates close the entrance to the porch.

SIDNEY C. CLARK.

Law Reports

Builder's Claim for a Garage

Donald Coats v. A. C. Hurst.

July 9. Official Referees Court.
Before Mr. Edward Pollock.

In this case the plaintiff, a contractor and builder, carrying on business at Stanmore, Middlesex, claimed for work done and materials supplied in connection with the erection of a garage for the defendant at his residence, "Killarney," at Stanmore.

Mr. Joseph, appearing for the plaintiff, said that on an application under Order 14 there had been judgment for £300, with a stay of execution as to £100, because defendant set up a counterclaim alleging that in building the garage the plaintiff had spoilt his garden. The matter arose in this way, said counsel: In the last week in January of last year the defendant's wife called upon the plaintiff and told him that her husband was desirous of having a garage built similar to one belonging to another gentleman who resided in the locality. That garage was built with rough-cast walls and a corrugated iron roof, but defendant wanted red brick in place of the rough-cast walls because his house was partly constructed of red brick. Plans were prepared and approved, and plaintiff was instructed to get on with the work, but during the progress a number of alterations had to be made in the work as originally arranged, including drainage and the construction of a carriage-drive, and the result was that plaintiff now claimed £251 15s. 5d., being the balance of £451 15s. 5d., after payment of £200.

The Referee, after hearing evidence, gave judgment for the plaintiff for £224 2s. 10d. on the claim, and also for plaintiff on the counterclaim with costs.

Builder's Claim for Bungalow

Osborne v. Campbell.

July 11. Official Referees Court.
Before Mr. Edward Pollock.

This was an action by Mr. John Rowland Osborne, carrying on business as J. R. Osborne & Co., builders and contractors, of Jewry Street, E.C., claiming from Mr. (Major) W. C. Campbell, of Barlenshaw Road, Thames Ditton, £1,236 balance of charges amounting to £4,136 1s. for building a bungalow at Thames Ditton. It appeared that on employment by defendant to erect the bungalow, the plaintiff submitted plans, but it was thought better that the assistance of an architect should be obtained, and plaintiff's brother, Mr. Claude Osborne, who had an architect's training, was engaged to prepare the plans. The plans were eventually approved, and a letter was received from defendant's manager, the only letter in the course of the case, asking plaintiffs to get the matter in hand at once. Soon after that plaintiff met the Major, and together a price was discussed, when plaintiff agreed to do the work on a prime cost basis with 5 per cent. for establishment charges and 12½ per cent. profit. Under this arrangement the work proceeded normally, and a lady who styled herself Mrs. Campbell gave many orders. Plaintiff's only difficulty, according to his counsel, was to get money, and he actually had to threaten to stop the work on several occasions in consequence. The work was completed in the early part of September, when defendant went into occupation. In December plaintiff sent in his accounts, but instead of getting payment they got a solicitor's letter asking for information and particulars. He was afterwards informed by the solicitor that the defendant had employed Mr. Pridmore, an architect, who, with a quantity surveyor, would go through the accounts. This was done, after which plaintiff received an extraordinary letter in which four different verbal agreements as to price were set up. Payments were made amounting to £2,900 by two bills, one payable at 40 days and the other at 60 days. No further payment was made, and the writ was accordingly issued for the balance.

The defendant did not put in any defence, nor did he appear, and, plaintiff having given evidence in support of his claim,

Mr. Pollock gave judgment for the plaintiff for £1,064 13s. 2d. with costs and dismissed the counterclaim with costs.

Housing Costs

The report of the committee appointed to consider the high cost of building and to make recommendations for its reduction has been submitted to the Government.

It is understood that the committee over which Mr. Stanley Holmes, M.P., presided, recommend that the limitation of the liability of local authorities to the equivalent of a penny rate should be abolished, and a new system of help introduced whereby the Government should be responsible for a percentage of the cost of a building scheme according to the locality in which it is initiated.

In making this recommendation the committee was, it is understood, actuated by the belief that the limitation of responsibility to a penny rate led local authorities to put forward extravagant schemes.

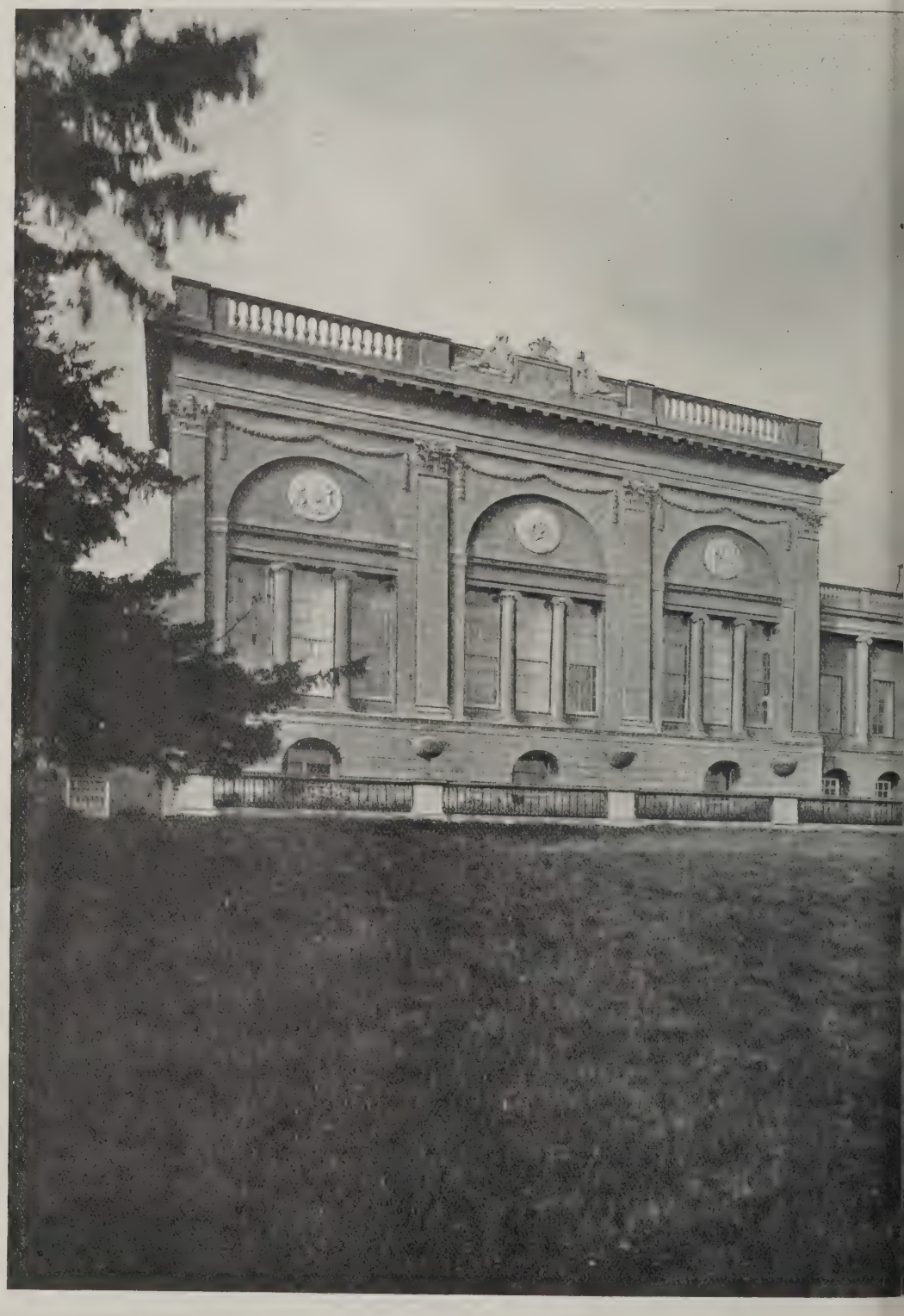


OAK PORCH, SOUTH BENFLEET CHURCH, ESSEX.

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Monumental Architecture.

Vanb



Stowe House, recently bought for the nation by Mr. Harry Shaw, at a cost of £50,000, was built in
appellation of "Stately Stowe." The mansion contains many priceless treasures, including Grinling
indebted to the courtesy of the auctioneer, Mr. Jackson St

›we House, Buckinghamshire

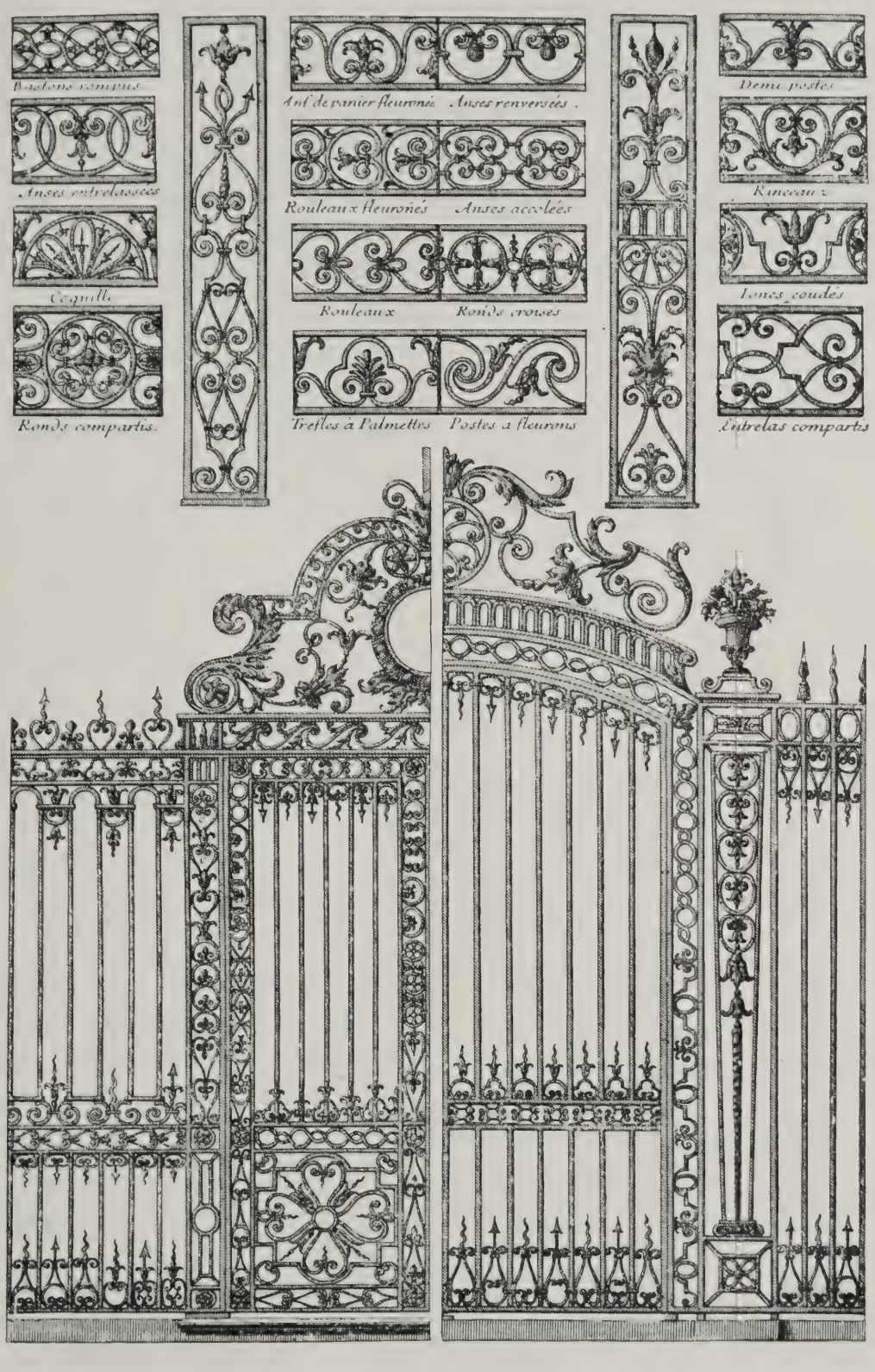
:hitect



:ars of the eighteenth century. The great scale and impressive dignity of its elevations fully justify the ›vermantels and Angelica Kauffmann ceilings. For the very fine view which we show above we are cester, under whose hammer the mansion was recently sold.

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French Metalwork. 18.—Louis XIV Gates and Details



Decorative ironwork, in common with all other architectural details, reflects the luxury and magnificence of the Louis XIV period. Some particularly fine examples of highly ornamental entrance gates are shown above.

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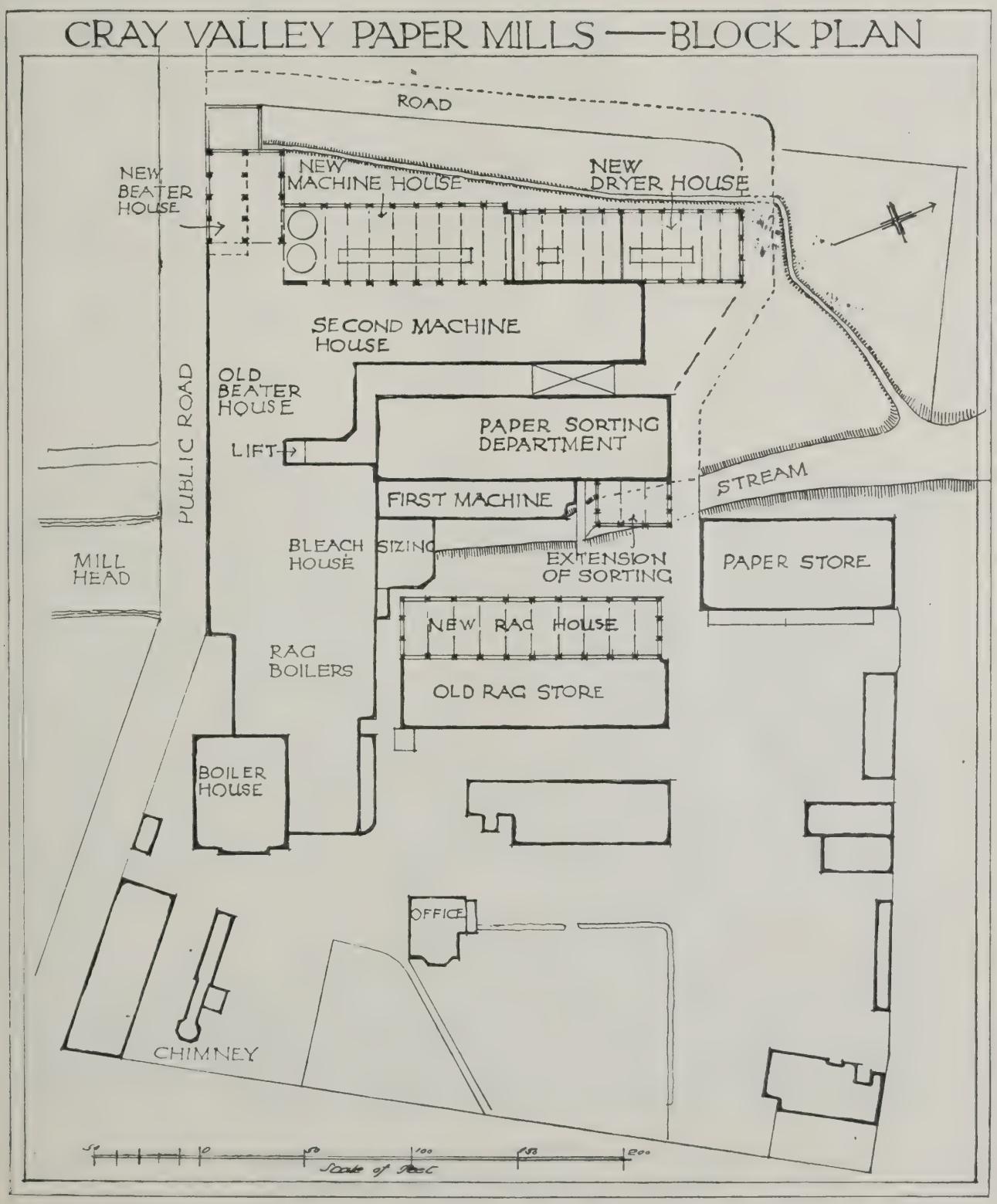
Construction 19.—New Beater House, Cray Valley Paper Mills, Kent

ADDITIONS to an existing beater house recently carried out at the extensive paper mills of Messrs. William Nash, Ltd., Cray Valley, Kent, give one an interesting practical example of the capability of reinforced concrete to withstand vibration. The architects, Messrs. Murrell and Piggott, AA.R.I.B.A., 35 Bedford Row, W.C., decided to use this material for the new building, adopting the Kahn system of reinforcement throughout, although the existing portion of the beater house was a steel frame structure.

Buildings of this nature are required to withstand a considerable amount of intensive vibration, caused by the motion of breaking and beating engines, which are machines employed to disintegrate rag and reduce it to pulp suitable for the manufacture of high-grade paper.

In this beater house the rags are taken up by an electric hoist to the second floor, which is arranged for three washing and breaking engines of about four tons liquid capacity, which, when full, weigh fifteen tons each. These machines are driven by a 150 h.p. Mather and Platt motor, also situated on the breaker platform.

The arrangement of the beams on this floor, as may be seen by referring to the drawing on page 116, is somewhat irregu-



lar. This was unavoidable, as owing to restricted headroom below the beams at the edge of the platform, these beams were required to be partly above the slab, and, consequently, it was necessary to introduce intermediate beams 20 by 9 in. to carry the 18 by 9 in. beams at the edge of the breakers. These intermediate beams were in turn carried by 22 by 13 in. beams spanning between the columns.

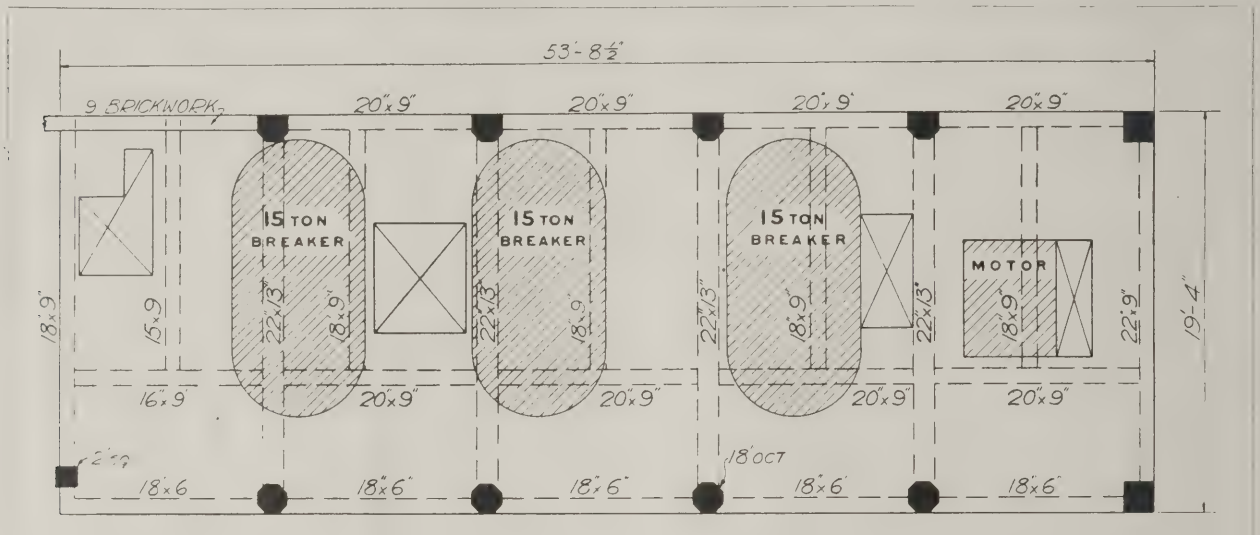
A part of the mechanism of a breaker or beater, termed the roll, requires periodical renewal, and as these rolls weigh between one and a half and two tons each, it is desirable to have a fairly thick slab to resist more easily any shock which may be caused by the rolls being dropped on the floor, when being removed from the breakers or rolled across the slab.

The breaker platform slab was made a minimum thickness of 6 in., and laid to fall towards the centre of the building, an essential measure in buildings of this type, in order to keep the floors drained, as water is continually being thrown on to them by the beaters and breakers.

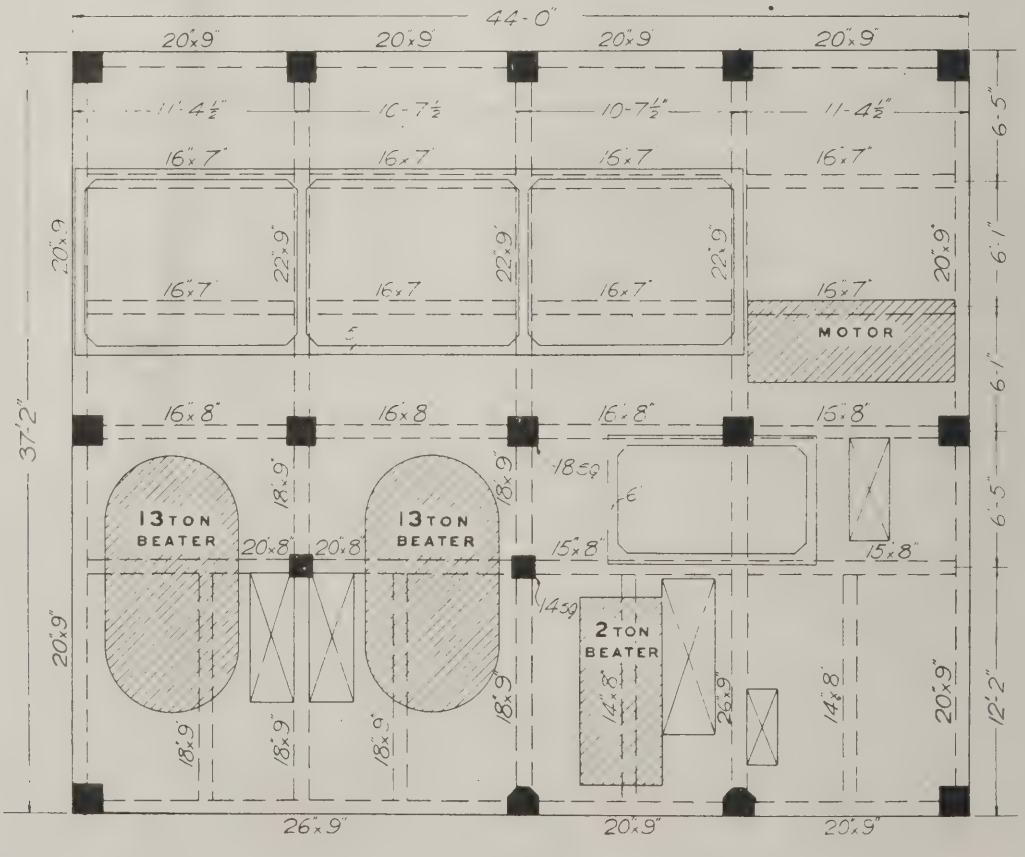
The rags are placed in the breakers where they are washed and partly disintegrated, after which they are bleached with chloride of lime solution and then pass down chutes to three reinforced concrete steeping or straining tanks situated directly under the breakers on the first floor.

This floor, which is 5 in. thick over the area covered by the breaker platform, forms the bottom of the tanks, the external and division walls of which, also 5 in. thick, are cast monolithic with the bottom slab.

The tanks are 3 ft. high and have in



2ND FLOOR CONSTRUCTION. (BREAKER PLATFORM.)



1ST FLOOR CONSTRUCTION.

NEW BEATER HOUSE, CRAY VALLEY PAPER MILLS, KENT.
MURRELL AND PIGGOTT, AA.R.I.B.A., ARCHITECTS.

:e aggregate a capacity of about :o cu. ft. The pulp is removed as re- iired from the tanks and used to feed ;o Hollander beaters, weighing thirteen ns each, and one three-roll patent Nash :ater situated alongside. In these echanisms the pulp is subjected to a ıal process of disintegration, after which passes down a pipe to the machine ıuse, where, after having undergone rther treatment, it is made into the ghest-grade papers.

The slab under the beaters has a inimum thickness of 6 in., and at one rtion of the floor forms the bottom of a t. high reinforced concrete tank, the 6 in. les of which, as in the straining tanks, e cast monolithic with the floor slab.

The first floor beams under the tanks own below are more regular in lay-out an those of the platform. Each bay divided into three by two 16 by 7 in. :ondary beams, which are in turn rried by 22 by 9 in. main beams.

The beams under the beaters, etc., are re again of irregular size and layout, cause, special consideration having to given to the shafting and belting, iformity could not be maintained.

The columns up to the first floor level e mainly 18 in. square. Above the or columns supporting the platform re constructed either 18 in. square, in. octagonal, or 18 in. square with amfered internal corners, as necessary, e reduction in section being made to ve as much space between the columns d the various machines as possible.

The external platform columns, which tend 6 ft. above the platform level, re made 18 by 12 in., as were also the ternal columns at the opposite side of the building, from the first floor to the eaves level.

At this level 12 by 9 in. beams act as lateral ties to the columns.

Steel roof trusses, which span the width of the building and are bolted down to the top of the columns, carry the corrugated asbestos sheeting of which the roof is constructed. Light is provided by means of steel sashes fixed in the side walls, also by continuous roof lights. The walls are brick filled between the concrete frame, to harmonize with the existing beater house.

The structure was designed to withstand the maximum loads occurring at the various points, due allowance being made for vibration. The building contractors for the work were Messrs. F. and H. F. Higgs, Ltd., Loughborough Junction, S.E.

The original mill of timber frame and weather-boarded construction remains in part, and is marked "first machine" on plan. It was doubtless worked by water-power from the mill head. The second machine was added about twenty-three years ago.

In 1919 a reinforced concrete rag-house was added of two stories, with rag-store on ground floor, rag-cutting room on first floor, and rag-bins on top floor, with electric lift supplied by Messrs. Waygood-Otis. A special system of dust extraction with large ducts was fitted with exhaust connections to each bench. A lavatory block was later constructed on the ground floor with hydraulic sewage lift apparatus installed by Messrs. Tuke and Bell to obviate a difficulty of level.

In 1920, owing to the great demand for the high-grade paper manufactured, it was decided to install a complete additional mill consisting of breaker and beater house, machine house and dryer.

Reinforced concrete was selected for beater and breaker houses, as, owing to the large amount of water always present, it is well to have the steelwork thoroughly encased.

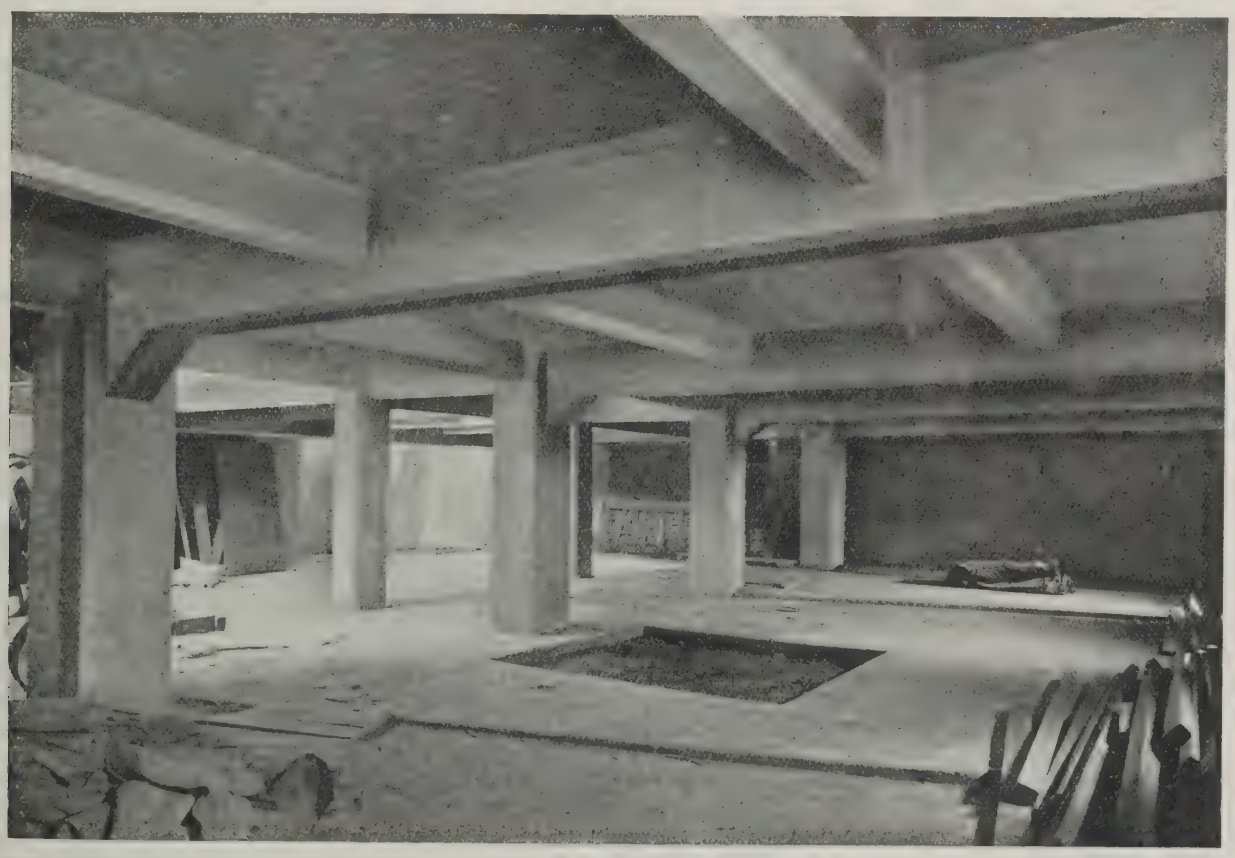
The machine house is of brick with steel trusses supplied by Messrs. Armstrong and Maine.

Owing to the large amount of moisture given off by the newly made paper drying on hot cylinders, in the winter considerable difficulty is apt to arise through condensation.

To obviate this as far as possible 48 in. and 36 in. Keith Blackman extraction fans were installed, and outer and inner linings of roofs were of asbestos sheeting.

The dryer house was kept as low as possible, as a high temperature has to be maintained here. The overall length of these buildings is 211 ft., necessitated by the long length of the modern paper-making machines and dryers, the roll of paper running through in one continuous line.

The general process of paper-making is as follows: The rags, having been cut up in the rag-house, are treated in rag-boilers; they are then bleached and pass to the breakers, from these to the beaters. The resulting pulp passes to the large reinforced concrete stuff-chests in the machine house. In a very liquid state the pulp passes over a shaking gauze, the water falling through. The paper is formed and carried on revolving blankets to the hot cylinders, thence to drying rolls. It is wound off on reels, and thence taken to the cutting and finishing machines.



NEW BEATER HOUSE. CRAY VALLEY PAPER MILLS, KENT. FIRST-FLOOR BEAMS SUPPORTING THE TANKS.
MURRELL AND PIGGOTT, AA R.I.B.A., ARCHITECTS.

R.I.B.A.

At a recent meeting of the Committee of Association of Licentiates, attention was drawn to the position that has arisen in relation to Memorandum No. 51, General Housing Memorandum No. 52, issued by the Ministry of Health. The Committee feels that the profession has been placed in a most unfortunate position owing to the fact that all the councils concerned in housing have already been notified of the new scale of charges.

This Committee hopes that immediate and strong measures will be taken to obtain a revision of this scale, so far as it relates to abandoned work, so that architects may receive a fair remuneration for their services.

Under the provisions of By-law 51, the Council have made the following additional appointments to the Standing Committees :—

Art Standing Committee.

W. J. Tapper, F.R.I.B.A.
Alfred Cox, F.R.I.B.A.
W. A. Forsyth, F.R.I.B.A.
F. R. Hiorns, F.R.I.B.A.
J. D. Coleridge, F.R.I.B.A.

Literature Standing Committee.

H. M. Fletcher, F.R.I.B.A.
A. H. Moberly, F.R.I.B.A.
S. C. Ramsey, F.R.I.B.A.
H. Austen Hall, F.R.I.B.A.
C. E. Sayer, A.R.I.B.A.

Practice Standing Committee.

Ivor Jones, F.R.I.B.A.
Francis Jones, F.R.I.B.A.
Rupert Savage, F.R.I.B.A.
T. R. Milburn, F.R.I.B.A.
A. O. Collard, F.R.I.B.A.

Science Standing Committee.

J. E. Franck, F.R.I.B.A.
H. A. Saul, F.R.I.B.A.
T. F. H. White, A.R.I.B.A.
Herbert Shepherd, F.R.I.B.A.
E. Fiander Etchells, Hon. Associate R.I.B.A.

Following are notes from the minutes of the Council meeting held on July 18, 1921 :—

Scale of Fees for Housing.—The Council received the resolution of the Special General Meeting on July 4, and arranged to resume negotiations with the Ministry of Health.

Boards and Committees of the Royal Institute.—The Boards and Committees for the session 1921–1922 were appointed.

Examinations.—The results of the examinations in June and July 1921 were approved; the Ashpitel Prize was awarded to Mr. L. W. Ingham, and a mark of distinction to Mr. F. I. Tellery.

Testimonies of Study.—Certain modifications were made in the Testimonies of Study for the Intermediate examination with a view to facilitating the work of the "Recognized Schools."

Exemption from the Intermediate Examination.—Exemption was granted to the successful students of McGill and Toronto Universities at the end of the third year course in architecture.

The Glasgow School of Architecture.—The five years' diploma course of the Glasgow School was recognized as exempting from the Final examination under the usual conditions.

The School at Rome.—It was decided to exempt the holder of the Rome Scholarship in Architecture from the Final examination under the usual conditions at the conclusion of his three years' study abroad, and the holder of the Henry Jarvis Studentship at Rome after his two years' study abroad, provided that their work is approved by the Board of Architectural Education.

Design Problems in the Final Examination.—It was decided that, subject to the approval of the Council, designs prepared at the Royal Academy Ateliers, and also at the "Recognized" schools, may be submitted for approval by candidates for admission to the Final examination in place of the same number of R.I.B.A. Problems in Design.

New Allied Societies.—The Institute of Scottish Architects and the Inverness Chapter of the Institute of Scottish Architects were admitted as Allied Societies of the Royal Institute.

Stoppage of the Housing Subsidy.—It was decided to communicate with the Minister of Health in regard to the stoppage of the housing subsidy in cases in which an architect has already been employed.

Reinstatement.—Mr. A. Hunter Crawford was reinstated as a Fellow of the Royal Institute.

The Standing Committee on Water Regulations.—Messrs. H. D. Sear Wood and Max Clarke were appointed represent the Royal Institute.

St. Paul's, Covent Garden.—The Standing Committee were authorized take action for the preservation of building in conjunction with the Soci for the Protection of Ancient Buildin

Competition News

Ottawa Government Buildings.

Letters have been received by R.I.B.A. from Messrs. Perron, T chereau, Rinfret, Vallee, and Gen barristers, of Montreal, reporting result of the case of "Saxe and Ar bald *v.* The King." This firm was brie by the Royal Institute to represent interests in the case and to assist competitors. The competitors have their case. In the judgment the foll ing words occur : "I find that the Cr was and is absolutely justified in proceeding to the erection of the bu ings in question, a construction wh would involve an expenditure of sev millions of dollars when our Canad exchequer is now overburdened with debts occasioned by the late iniquit war. These circumstances operate as impossibility of performance, and I find, under the numerous authori cited herein, and that the suppliants



NEW BEATER HOUSE, CRAY VALLEY PAPER MILLS.
MURRELL AND PIGGOTT, AA.R.I.B.A.
(*See page 115.*)

ily entitled to recover the sum of 3,000 offered them by the Crown's atement in defence. . . . There will be dgment adjudging that the suppliants re entitled to recover the said sum of 3,000, with costs up to the stage of ing defence. All other claims set up by ne suppliants are dismissed without osts to either parties."

The R.I.B.A. Council, of course, regret ne result of the case, but they feel that ne action which they took in support of ne competitors was fully justified.

By a further letter, dated July 5, 1921, ne Royal Institute is informed that the laintiffs have decided not to appeal gainst the judgment.

War Memorial, Chelmsford.

The War Memorial Committee of the Borough of Chelmsford invite architects nd others to submit designs and esti- nates of cost for a memorial to the men f Chelmsford who fell in the war. It is roposed to erect the memorial in the entre of Tindal Square, Chelmsford, on he site at present occupied by a statue o Lord Chief Justice Tindal. Premiums f £10 10s. and £5 5s. will be awarded. Designs and estimates to be sent by August 31 to Reg. C. Knight, Secretary, Municipal Offices, Chelmsford, from whom ull particulars may be obtained.

For list of Competitions open see last week's issue.)

The G.E.C. in its New Home

The annual general meeting of the General Electric Company, which was eld on Thursday last, took place at Magnet House, the magnificent new premises recently completed in Kingsway.

The report of the directors showed a otal profit for the year of £971,817 6s. 4d., nd after paying dividends of 6½ and ½ per cent. on A and B preference hares respectively, it was proposed to pay a 10 per cent. dividend, free of income ax, on the ordinary shares. The chairman, Mr. Hugo Hirst, made a very happy peech, in which he reviewed the progress of the company, and explained its present highly satisfactory financial position. He emphasized the difference between profits arrived at by an industrial enterprise in contradistinction to a rading concern, the former creating values and employing an enormous number of highly skilled workers.

Magnet House, which was inspected after the meeting, is an architectural achievement, excellent in conception and harmonious in design. The work of Mr. R. Frank Atkinson, F.R.I.B.A., the building covers a ground area of 35,722 sq. ft., and has eight floors, including the basement. Each floor is divided into eight sections by brick walls, fitted with fireproof doors, made by the company at their Fraser and Chalmers Engineering Works, Erith. The main entrance hall is of fine proportions, stone-valled and marble-floored, with bronze gates and fitments. The staircase is of marble, and two passenger lifts are also nstalled. The showrooms are in the basement, and a suite of rooms decorated in various period styles is devoted to the exhibition of electric-light fittings and domestic electrical appliances.

A special industrial showroom displays street and factory lighting equipment, switchgear, telephones, cables, and wiring materials, etc., and a special feature is a demonstration of the company's new "Kingsway" surface wiring system. The ground floor is taken up to a great extent by sales counters, behind which considerable storage accommodation is arranged, and the administrative departments are housed on the first and second floors. The dispatch department and stock rooms, telephone exchange, illuminating engineering department, staff canteens, and lecture hall occupy the remainder of the building, which has been specially designed throughout to embody every modern labour-saving device, and to facilitate speedy and efficient service.

Builders' Benevolent Institution

At the seventy-fourth annual general meeting of the Builders' Benevolent Institution, held at 48 Bedford Square, W.C., on July 20, 1921, the annual report and the audited account of income and expenditure for the year ended July 7, 1921, were received and adopted.

The following officers for the ensuing year were elected:—President: Mr. A. B. H. Colls, F.I.O.B. (Messrs. Trollope and Colls, Ltd.). Treasurer: Mr. Frank May, J.P., F.I.O.B. (Messrs. Holland and Hannen and Cubitts, Ltd.). Hon. Auditors: Mr. John T. Bolding and Mr. Hubert S. Ward, F.C.A.

The following were re-elected members of the Committee of Management: Mr. G. M. Burt, Mr. Thomas Hall, Mr. B. Hannen, Sir Henry Holloway, Mr. H. T. Holloway, Mr. J. W. Lorden, M.P., Mr. J. C. Nicholson, and Sir Frederick Rice.

The seventy-fourth annual report was as follows: The Committee of Management, in submitting its seventy-fourth report, desire to express their appreciation of the services rendered to the institution by Mr. Walter Lawrence as President for the past year, whose endeavour to augment the funds was so successful that at the annual dinner in November last the amount of contributions received exceeded the total collected in any previous year. As a result, the Committee were in a position to make a Christmas gift of £5 to each pensioner. The Committee were very glad to be able to do this, as they fully realized the fact that many of the pensioners had found extreme difficulty in meeting the high cost of living, particularly during 1920.

The Committee sincerely thank the subscribers and donors who responded to the appeal of the President.

An election of pensioners was held last month as advertised in the public and trade press. The applications have been investigated by members of the Committee, with the result that five men and two women have been added to the pensioners' list, viz., Mr. H. Hughesdon, Mr. C. J. Heryet, Mr. W. W. F. Bennett, Mr. T. Andrew, Mr. H. J. Heard, Mrs. A. M. Nicholas and Mrs. C. J. Haynes. A pension has also been granted to Mrs. E. I. Downs, widow of the late Mr. W. B. Downs (pensioner).

There are now sixteen men and thirty women receiving the benefits of this institution.

The Committee are pleased to report that Mr. A. B. H. Colls, of Messrs. Trollope and Colls, Ltd., has kindly accepted the presidency for the coming year, and trust that he will be supported by the presence of a large number of subscribers and donors at the annual dinner which it is proposed to hold in November next.

Latest List of New Inventions

Latest Patent Applications.

18313.—Arquint, H.—Support for plasterwork, and reinforcement of ceilings, walls, and roofs. July 6.

18316.—Berlepsch, K.—Method for constructing stairs. July 6.

18389.—Clifton, W. E.—Concrete building construction. July 7.

18528.—McNay, J. T.—Metal ties, etc., for bars of reinforced concrete structures. July 8.

18278.—Seccombe, C. P.—Cellular building block. July 6.

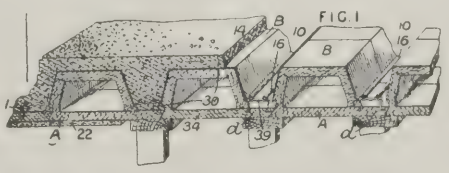
Specifications Published this Week.

165466.—Clarke, W. W.—In situ method of manufacturing dwelling-houses and like structures built mainly of concrete or similar material, and apparatus employed therein.

Abstract Published this Week.

163400.—Floors; ceilings.—Davis, J. G.-956 Ellicott Square, Buffalo, New York, U.S.A.—Filling, blocks are constructed of two L-shaped porous slabs A B, one having a longer base than the other and supporting it. The protruding part *d* of the slabs A forms the base of channels 10, and in it are embedded

FIG. 1



crimped metal supports 39 for reinforcing-bars 16. The floor is completed by concrete 14. To prevent the absorption of moisture from the concrete 14 and ceiling plaster 22 the slabs may be coated with impervious material 30, 31. The slabs are so shaped as to give a doubly divergent channel in section, and the lower slabs meet in bevel joints.

The above particulars are specially prepared by Messrs. Rayner & Co., Regd. Patent Agents, of 5 Chancery Lane, London, from whom readers of this journal may obtain all information free relating to patents, trade marks, and designs. Messrs. Rayner & Co. will obtain printed copies of the published specifications and forward on post free for the sum of 1,- each

The Week's News

Pension for a Sculptor.

Mr. J. Pittendrigh Macgillivray has been granted a Civil List pension of £75 for his services to sculpture.

Wandsworth's Appeal.

Wandsworth Housing Committee have asked the Ministry of Health to allow them to complete their building schemes at Furzedown and Watney.

Promenade for Margate.

The construction of a promenade nearly 400 ft. wide from Cliftonville to Kingsgate is projected by Margate Town Council.

Bristol Cathedral.

A scheme has been set on foot to fill windows in Bristol Cathedral with stained glass in memory of those who have fallen in the war, anyone who has lost a relative being permitted to fill one panel.

Lambeth Bridge.

Owing to the financial position there is little likelihood of any immediate rebuilding of Lambeth Bridge, which has been closed to vehicular traffic since 1910, when it was declared unsafe.

Royal College of Art.

The diploma in architecture has been won by L. M. Austin, who also gained the £10 prize in the School of Architecture. The travelling scholarship in the same subject has been awarded to H. Thomson.

Change of Address.

The Architects' and Surveyors' Assistants' Professional Union has left Sanctuary House, Tothill Street, and taken new offices at 36 Victoria Street, Westminster, S.W. 1.

Last Week for Housing Bonds.

The Finance Committee of the London County Council are of opinion that the issue of housing bonds should terminate on July 30. The total amount raised by the issue of May, 1920, is £3,900,000.

Coventry Builder's Will.

Mr. Edward Harris, of 28 Park Road, Coventry, builder, who died on January 19, has left estate of the gross value of £45,408 7s. 4d., with net personalty £13,261 18s. 4d.

Dr. Murray Butler at Reims.

Professor Nicholas Murray Butler has laid the foundation stone of the new library at Reims, which is to be built with funds contributed by the Carnegie Foundation.

Huthwaite Houses.

A proposal at a meeting of Huthwaite Urban District Council to build twenty more houses was defeated, an amendment being passed that further information on the subject be first obtained.

Fremington War Memorial.

Lady Baird has offered a site for a war memorial at Fremington, Devon, together with £300 towards the cost of the building and £50 a year for three years towards its upkeep.

A Correction.

With reference to the University College School of Architecture results, published in our last issue, a correction has to be made. The name rendered as "P. N. Parker" should have been P. M. Patker.

Honours in Architecture.

In the B.A. examination for Internal Students in June, the following were awarded Honours in Architecture: First class: R. C. White-Cooper, University College; second class: W. F. Scarlett, University College.

What Solomon's Temple Cost.

Lecturing in Cambridge, the Rev. T. E. Bird mentioned that the Temple of Solomon in modern values would cost about £1,000,000,000. Practically the entire manhood of Israel was conscripted to build it.

New Italian Tariff.

A supplement to the "Board of Trade Journal" of July 21 contains a translation of the new General Customs Tariff for Italy. A statement will be included of the "Conventional" rates still operative under existing commercial treaties and the goods to which they apply, and information as to Tare regulations, etc.

Increased Fees for Surveyors.

The London County Council is recommended by the Building Acts Committee to increase, as from October 1, fees payable to the district surveyors under the London Building Acts by 25 per cent. This is in addition to the 25 per cent. increase provided for in the Council's General Powers Bill.

Future of Kenwood.

Local authorities north of the Thames have met in conference to consider the question of taking joint action with regard to the proposed purchase for the public of Kenwood. A resolution was passed expressing the opinion that steps should be taken to secure the property.

Builders' Gift to the University.

A cheque for £3,212 has been formally presented to the Manchester University Appeal Fund by the Builders' Institute. This sum, which is intended to found travelling studentships (under the name of the Builders' Institute) from the School of Architecture, has been subscribed from the towns of Lancashire which have Manchester as their centre.

Town-planning in Doncaster Rural Area.

The Town-planning Sub-Committee of the Doncaster Rural Council report that they have considered the report of Professor Abercrombie and Mr. T. H. Johnson, together with the report of Mr. Humble, on the subsidences that may be expected from colliery workings, and it has been decided that the District Council should prepare a town-planning scheme for the whole of the area of the rural district, or so much of it as is not being town-planned in accordance with the provisions of Section 42 of the Housing and Town Planning Act.

Gift of a Park to York.

The title deeds of Rowntree Park, York, have been handed over to the Lord Mayor, who opened the park to the public. The park is the gift of Messrs Rowntree to the corporation as a memorial to those of their employés who fell and suffered in the war. The park is of about twenty acres, including a hockey ground, cricket pitch, bowling green, lake, bandstand, and wading pool for children.

The National Federation of House Builders.

The National Federation of House Builders have laid proposals before the Ministry of Health asking for a grant to be given of sufficient amount to defray the difference between the value of the house and its estimated cost. This grant could be revised and reduced as the cost of building decreases, until no subsidy is necessary.

Development of Torquay.

A proposal of the Town Council to acquire a portion of the Kilmorie estate is of importance, as it will give the local authority control over a stretch of foreshore of about nine miles, extending from Livermead to Watcombe.

It will also make possible the construction of a marine drive from Paignton to St. Marychurch, and probably further, as well as the opening up of sites for the erection of villa residences overlooking Torbay.

Tottenham's £100,000 Scheme.

The Tottenham District Council propose to embark upon a scheme involving an outlay bordering upon £100,000, of which only about £25,000 is expected to be found by the Government. The proposal is to construct a two and a half acre lake with an island, a bandstand, running track, shelters, etc., on the Tottenham Marshes—a flood area contiguous to the Lea. A part of the scheme, too, is to provide a promenade, and also to improve twenty-five acres of the marshes.

Chippenham's Architects' Fees.

At Chippenham Rural Council some discussion has ensued relative to the position in connection with the housing scheme. It was stated that the fees of the two architects for the work they had done came to close upon £3,000, and no a house had been built, nor even a contract accepted. Eventually the whole matter was postponed for three months in the hope that some definite decision by the Government would be made meanwhile.

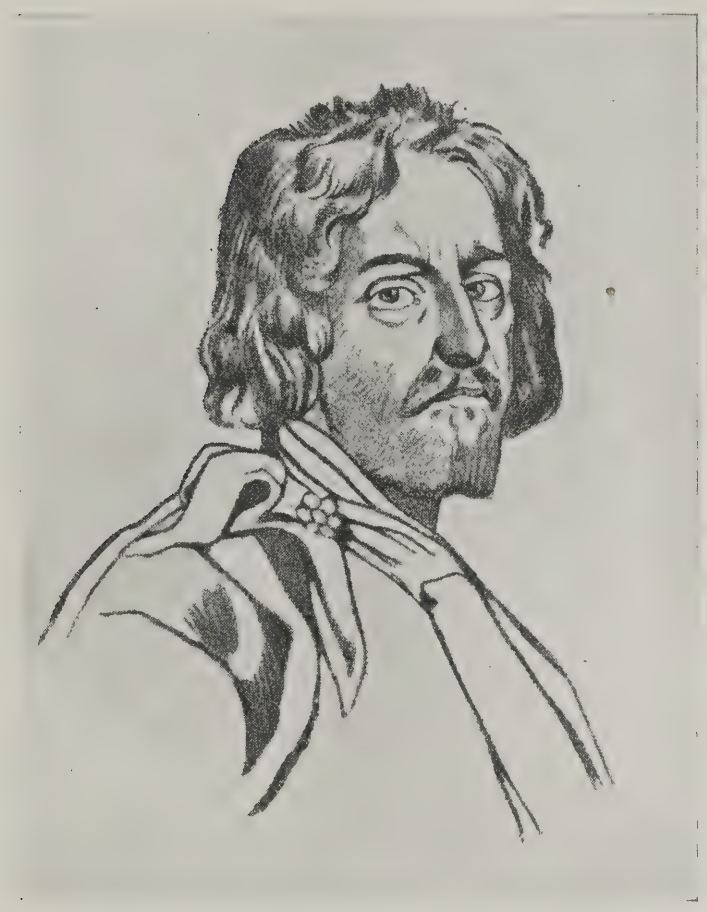
Northamptonshire Association of Architects.

On July 14 the Northamptonshire Association of Architects held its Summer Meeting at Deene Park by kind permission of G. L. T. Brudenell, Esq. About thirty members and friends were met at the entrance by the President of the Association, Mr. J. Alfred Gotch F.R.I.B.A., F.S.A., who gave a short account of the history of the house and of the Brudenell family, and then conducted the party through the more interesting parts of the building. Tea was well served at the Sea Horse Hotel Deene, and a short visit to Kirby Hall brought a most successful afternoon to a close.

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THE ARCHITECTS' JOURNAL & Architectural Engineer

With which is incorporated "The Builders' Journal"

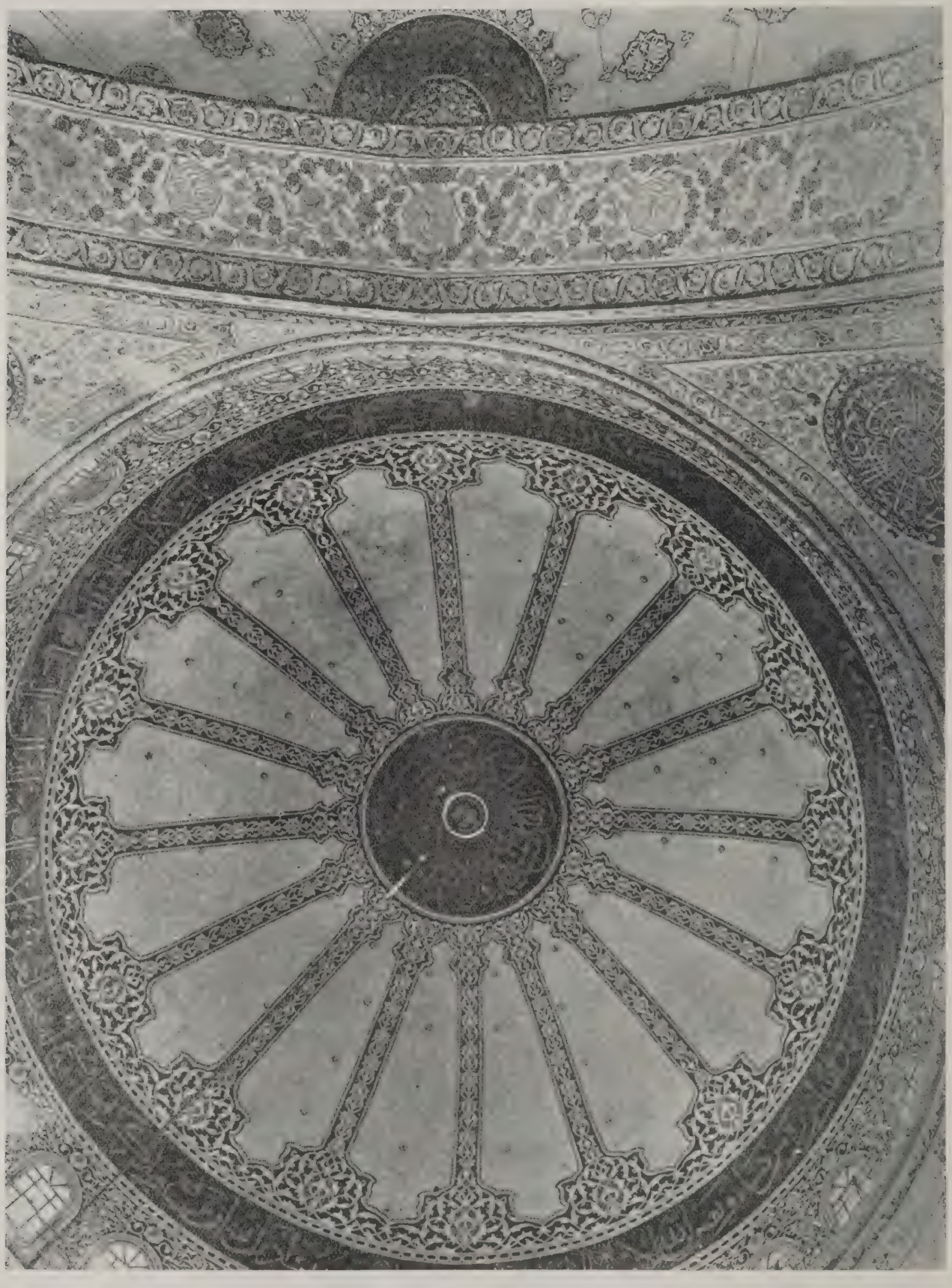


GIULIANO DA (GIAMBERTI) SAN GALLO.

Architect, engineer, and woodcarver. Born in Florence and trained as a woodworker. In 1465 he was in Rome and was employed by Paul II on the palace of St. Marco, the tribuna of St. Peter's, and the Vatican (Müntz). He designed for Lorenzo de' Medici the octagonal sacristy of St. Spirito in Florence, begun in 1489, and the famous villa of Poggio a Cajano. His *chef-d'œuvre*, the church of the Madonna delle Carceri at Prato, was built between 1489 and 1491. In 1484 he restored the fortress of Ostia, and in 1494 he built the palace of Savona. From 1497 to 1500 he was employed as civil and military architect in many Italian cities. San Gallo in 1507 was chosen chief architect of the Duomo, Florence. During the reign of Leo X he was associated with Raphael as architect to the Vatican and St. Peter's. The Palazzo Gondi (Florence) is attributed to Giuliano by Vasari.

27-29 Tothill Street, Westminster, S.W.1.

Dome of Mosque of Sultan Ahmed I, Constantinople



Under Sultan Ahmed I, government, which had grown weak under preceding Sultans, was restored to something of its earlier power, and in 1608-14 the mosque which bears his name was built. A striking feature of the interior is the huge central dome, about 55 ft. in diameter, covered with mosaic decoration in a geometrical design.

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The Shrinkage of Housing Staffs

MR. ARTHUR KEEN, the R.I.B.A. hon. secretary, has written to "The Times" a letter that, he being human, must have cost him an effort. "I do perceive here a divided duty!" Othello's dilemma was surely Mr. Keen's ere he resolved to accept his Council's advice to advocate a reduction to reasonable dimensions of the overgrown staff of the Office of Works. Having hardened his heart, or stifled its weaker emotions, Mr. Keen finds it possible to take what is certainly a judicial stand. "Let justice be done, though the skies fall." "The Office of Works," he writes, "appears still to be seeking for work in the interests of its staff; but the interests of the country will be served best by reducing that staff to the number required for dealing with existing buildings and for discharging the duties for which the Department was constituted. The saving that results will be worth making on its own account, but the really big saving will be in the direction of bricks and mortar."

That "but clause" appears to be a delicate innuendo. It is very true that machinery must either be kept employed or scrapped; and to keep the Office of Works employed is, if we rightly apprehend Mr. Keen, to build superfluously. Argal, any shrinkage of the Office of Works will imply a saving "in the direction of bricks and mortar," as Mr. Keen so quaintly puts it. Such, we take it, is his chain of reasoning, and it is certain that Mr. Keen deeply regrets the implied result of wholesale dismissals. It is a massacre of innocents.

Not the least painful of the many ill consequences of bringing together large aggregations of persons following one particular profession—in this instance that of the architect—is that as soon as they cease to co-operate they begin to compete in a suddenly and sadly congested market. Therefore, to advocate the reduction of the Works Department just when the Ministry of Health is giving notice of dismissal to assistants who were hoping to take refuge in the Department by which housing was thought to have been taken over, is to dash hopes if not to augment hardships.

Nevertheless, here was a painful duty that had to be done. It is perfectly obvious that the Office of Works has become too ambitious, and that much of the work it has done or has proposed to do ought to have been entrusted to free architects and independent contractors. There is no need to argue that it would then be done better and more economically. The question of quality of workmanship and economy of production may for the moment be waived. Nor would it be convincing, or germane to the argument, if the Office of Works were to retort that in certain instances building had been done more cheaply than similar works executed under ordinary contracts. It would be remarkable if such instances could not occasionally be shown; and if the activities, and inactivities, of this or any other Government Department were fully and frankly set forth in detail, and its ledgers were duly audited in a businesslike way, the balance might possibly (but the proposition seems ludicrous) still be in favour of the Department. "Figuring-out well," however, even if such a miracle could be performed by any Government works department, would not justify its existence. "To make the Department pay," or seem to pay, is not a conclusive argument, even if it can be adduced.

If it could be shown (as it certainly could not) that the Office of Works was a profit-making department, other serious questions would at once arise. It would be asked, for instance, Was quite all the work on which a profit (let a profit be assumed) is shown necessary work, or was it superfluous, except in so far as it saved the staff from dispersal?

Another of the crucial questions to which accountancy is no criterion is, What is the æsthetic effect of the system of herding together in a department a large number of architects who must necessarily be amenable to discipline, work to order, forfeit much independent judgment? In Government departments generally—here there is no need to specify any one of them in particular, the natural tendency is for the inmates to degenerate until they become like tame rabbits in a hutch, hand-fed through the bars, and ultimately losing the strength and resourcefulness that come of roaming the fields in search of food.

Government and other official architects are, perhaps, necessary, but their functions should be merely advisory, and their activities must be kept well within bounds, so that the State or municipal architect shall not be given opportunities to produce architecture wholesale on a sort of factory system. Such a system inevitably produces an atmosphere that is unhealthy for architecture, unfair to architects, whether immured within or moving freely outside the official circle, and wasteful alike of spirit and substance. As a matter of principle, therefore, it is impossible to deny the force of Mr. Keen's contention that the Office of Works staff should be reduced in accordance with the diminished requirements for housing.

In fact, Mr. Keen's letter can but very slightly affect a crisis consequent on the bursting of the housing bubble. Government, morally responsible for both the collection and the dispersal of whole regiments of official architects, as well as for the disturbance of many outside practitioners who were induced by specious representations to devote themselves to housing projects which have been abruptly abandoned (we beg pardon, "suspended"), deserve most considerate treatment at the hands of the Government that has brought them to this pitiful pass. It is, of course, as Lieut. Col. Fremantle phrased it the other day at the L.C.C. weekly meeting, "in view of the new situation created by the Government," that the Council also is, like many another municipal authority, cutting down its housing schemes and contemplating drastic staff discharges. Architects all over the country are hard-hit by this sudden and capricious disruption of their arrangements, and their case might reasonably and justly be brought to the notice of Parliament.

Notes and Comments

Threatened Lock-out of Builders

AT a meeting of building-trades employers at Sheffield last week, there was more than a hint at an impending general lock-out. A resolution was unanimously passed regretting the comparative failure of the scheme for the employment of ex-Service men, and resolving to extend the effort to put it into operation; and one of the speakers stated that "London was prepared to give the lead to the country to withdraw all men unless the operatives would agree to train the ex-Service men." Mischief is being fomented in the daily newspapers by the use of such "scare headings" as "Builders to Fight Trade Unions. Lock-out Threat to aid Ex-Service Men"; but there need be no further painful evidence that ours is "a strike-ridden country"—the expression including lock-outs—if only the respective sides will condescend to take notice of the devastating effects of labour disputes and the beauties and virtues of a conciliatory temper. For the land's sake, as the Americans say, let us stop quarrelling and get on with the work!

Glemham Hall and Elihu Yale

Yale and Harvard, who so handsomely beat Oxford and Cambridge in athletic contests the other day, have, as all the world knows, further claims to our admiration and kindly regard. There were strong reasons for commemorating Harvard in the church of St. Saviour, Southwark (now known as Southwark Cathedral); and Yale is buried in Wrexham churchyard, where there is a quaint epitaph that acclaims him as a true citizen of the world; for it is to the effect that he was born in America, bred in Europe, travelled to Africa, married in Asia, and was buried at Wrexham. By way of interlude, he made a fortune as Governor of the East India Company. His interesting career is recalled in an announcement that Glemham Hall, Suffolk, is for sale. Elihu Yale, founder of Yale University, was very fond of Glemham Hall, and set up in its grounds a sundial bearing his armorial device; but what exactly was his connection with the hall has not been recorded. It is an Elizabethan house, with later alterations. Here is an instance in which American purchase of an old English home would, for once in a way, fail to cause any insular regrets; which, in any case, should promptly give way to the very pleasing reflection that, after all, the Americans are, generally speaking, our own kith and kin. To begrudge them a Sulgrave Manor or a Glemham Hall were to carry chauvinism to extravagant lengths indeed!

A Building Guild Enthusiast

Building guilds have many powerful advocates. One of them, Mr. Ernest Selley, who is said to have "just completed an impartial survey of the various undertakings of the building guilds," writes in "The Daily News" a decidedly glowing account of them. From its heading ("The Success of the Building Guilds") to its last paragraph, in which it is claimed that the evidence in their favour "should convince all those whose judgment is not darkened by prejudice," this "impartial survey" bears a most striking resemblance to one-sided advocacy. "The guilds have shown their ability to organize labour. . . . The quality of the work is distinctly above the average. . . . Some experts state that output on guild schemes is twenty-five per cent. above the average," and so forth; while there is added the sanguine though obviously premature summing up that "all the evidence indicates that final costs on all guild schemes will be considerably below the original estimates." But "all the evidence" is not yet available, and judgment must be reserved until the accounts are finally passed. Even then it will be as well to recall the proverb about new-broom efficiency. With respect to Mr. Selley's supposition that "the building guild represents a new type of industrial organization, which may profoundly affect industrial relations in the future," there are two observations to be made. The first is that the guild idea, in one shape and another, is very much older than the type of industrial organization that has superseded it. Secondly, the type that succeeded it is therefore very likely to be an instance of the survival of the more fit. In one respect the building guild is not merely a revival: it is a guild of all the trades, whereas in "the old times before us" each trade had its separate guild, each headed by its dour and gloomy dean, and the architect must occasionally have been sore beset to defend one trade against another. No doubt "demarcation disputes," as we call them to-day, were of very early origin. There was probably a dispute as to whose job it was to apply the waterproofing compound to the ark! For the moment, building guilds have been entrusted with only the easiest of tasks. Building working-class houses—"brick boxes with slate lids"—is a comparatively simple matter. No high degree of skill in organization is required where the contract is not for cottages, but for buildings large in size and of elaborate design, the organization becomes correspondingly complicated, and must be supervised by highly qualified business specialists. It is by virtue of this specialized skill in handling the complicated, varied, and often very delicate details of organization that the present system has grown up and is likely to withstand many assaults upon it. To announce, therefore, in large black capitals, as our contemporary has done, "The Success of the Building Guilds," is to prejudge a cause that is by no means ripe, but merely incipient. But, unfortunately, most of the readers of a popular newspaper will read nothing beyond the heading of an article whose subject they will consider dry as summer dust, and from the "caption" they will derive an utterly unwarrantable inference. Building guilds have not been long enough in existence, nor has their experience been sufficiently varied and extensive, to justify a verdict either of success or of failure; and the judgment should come with higher authority than that of a partisan article in a daily newspaper.

The Site of Shakespeare's "Globe"

Once again the ancient controversy as to the actual site of Shakespeare's "Globe Theatre" has become acute. Mr. George Hubbard, F.S.A., F.R.I.B.A., is, as our readers are aware, very keenly interested in the question. Some few years ago he published an interesting pamphlet on it, and a report just presented to the London County Council by its Local Government Committee mentions that in 1913 Mr. Hubbard suggested to the Council that the memorial which had been erected on the south side of Park Street, Southwark, by the Shakespeare Reading Society to indicate the site of the Globe playhouse was not rightly placed. Independently of Dr. Wallace, the American investigator of the subject, Mr. Hubbard thinks that the memorial should be placed on the north side of the street, but it is now announced that "research undertaken under the direction of the Clerk of the Council has conclusively settled that the Globe was on the south side of the road, and the position of the frontage has been decided to within a foot." In such matters it is seldom possible to determine so exactly and positively, and the memorandum on the subject that the Council promise to publish is sure to be scanned very critically. Mr. Hubbard, putting up some buildings on the site of the Globe, found there some old foundations; and the results of his study of the subject were recorded in an admirable paper entitled "The Site of the Globe Theatre of Shakespeare on Bankside as shown by Maps of the Period," which was printed in the R.I.B.A. Journal of November 6, 1909. It will be interesting to know whether he finds the L.C.C. verdict convincing; but in such a case, absolute ascertainment being nearly impossible, Mr. Hubbard might well be excused for giving himself the benefit of the doubt. In the lack of positive evidence one theory may be as good as another.

How to Educate the Public

By ARTHUR WELFORD, A.R.I.B.A.

THE architectural historian of 1970 will possibly refer to the present time as being at the beginning of a period of revival in the art of architecture. It is probable that a few more years will bring us to a more or less stable social condition, and, with an accompanying condition of real wealth, such a revival will certainly take place.

But in order to be of any enduring value the interest not only of the converted and the semi-converted, but of the indifferent, must be awakened and encouraged.

It is questionable whether any remedy so far suggested would function to the extent required to impress and interest that portion of the public commonly known as "the man in the street," and it is precisely that interesting person—outnumbering the converted by perhaps a thousand to one—who should receive the benefits and pleasures to be derived from the contemplation of all that is beautiful in architecture.

Various suggestions have been made recently as to the best methods in popularizing architecture, such as free public lectures, Press notices, and criticisms of new buildings; but it is doubtful whether these specifics will have much effect upon the unconverted, who will prefer, as in the past, to be amused at a music-hall and instructed by the sports columns of the public Press.

Architecture and History

Preaching to the converted is a waste of time: we must concentrate on the great unenlightened. Our education authorities might well revolutionize the teaching of history in elementary and other schools—at present so meagre and misleading—by founding their instruction in that subject on the history of architecture, thus killing those two ill-omened birds—indifference to architecture and ignorance of world history—with one stone. Architects, as a rule, have a fair knowledge of world history, gained almost entirely from the study of the architecture of all countries in all ages. But to pursue this suggestion would be to digress from the main purpose of this article.

What chance is there of rousing the interest of the public? Lectures and press notices are excellent for the comparatively small number of our sympathizers; and as for propaganda we must be very sure of the soundness of the services we wish to advertise. But object lessons, daily and hourly, to the uninstructed in the form of charming houses in which they must live, and beautiful buildings in which they must work, would be of more value than anything else.

"Object Lessons for the People"

The provision of these would begin to cure this all-pervading indifference from the bottom. Object lessons are simple fare, easily digested, and should go before the strong meat of literary instruction. At the present time these object lessons for the people exist in the form of long rows of speculatively built houses, depressing to the spirit and destructive of any desire for better things, and in street façades showing a confusion of aim, and exhibiting much meretricious detail. These all increase and multiply without the aid of architects; is it any wonder that the public takes no interest?

This state of things should surely not exist. Architects should be responsible for the direction of all building enterprise, however humble, and that they are not so is surely not the fault of the speculator.

London has been built, since the days of Dr. Barebone and his speculation in Bedford Row in 1684, mainly by speculators with only occasional assistance from architects. That gentleman, a pioneer in a perfectly legitimate occupation, had bricks thrown at him and his workmen by the students of Gray's Inn, and from that time to the present metaphorical bricks have been heaved at the speculator, and he has been treated with cold neglect by the guardians of the art of architecture. Time has brought his revenge; our architecture has become permeated by cheap speculative motifs!

Speculative Building and the Architect

Notwithstanding this attitude of the profession in the past as in the present, speculative building, great and small, has gone on and will continue to do so. The results in the future will be similar to, if not worse than, those achieved in the past so long as architects are forbidden to have any interest in such schemes; not even a Committee of Taste will be effective to combat the evil, until the best and the most influential architects can bring themselves to put aside their prejudices, and, with understanding and sympathy for the speculator, associate themselves with his enterprise.

It has been done in the past, notably in the case of some of the work of Adam, and the good results can be seen in Edinburgh and in London; the only regrettable thing about Fitzroy Square, for instance, being that it was never properly completed.

Carrying this form of speculative building down to the present time, and assuming that a large building is to be erected fronting on an important main road, there is no real necessity for a speculator and his financial backer to employ a qualified architect to design and superintend the erection and the details of the building, except, perhaps, in the capacity of "Ghost" at a small salary.

The position of the architect who really designs the building will not be dignified, neither is the system likely to produce the best architectural results, and in addition the public will be misled when reading the signature on the corner-stone of the building.

On the other hand, were the architect a partner with a speculator and, perhaps, a financier, he would take his rightful place in the estimation of the public, and would be more generally acknowledged to be the useful person that he is.

Speculation the Remedy?

Speculative building, great and small, is a legitimate occupation, useful and necessary, and it provides the public with most of its architectural education, such as it is. Architects should not be discouraged from associating themselves with it; rather the reverse.

This is a commercial age, and architects should adapt themselves to the circumstances, or expect the consequences. *Autres temps autres mœurs.* Our present tactics are those of the hard-pressed ostrich.

Would it not be well for the profession—if it really wishes to educate the public—to alter its attitude towards Commercialism? A change would bring it more in touch with everyday life and with business people, certainly to the advantage of the art of Architecture, and very possibly to the pecuniary profit of the artist.

Let it be made legitimate for an architect to associate himself with genuine schemes of speculation; let him be encouraged to do so, and there will be more work for rising men, and better architecture all round. The system of speculative building has prevailed since 1684 (or before) without much help from architects, it will continue in the future, and the public will remain indifferent to architecture unless——

This mountain will not come to Mahomet.

Dangerous Corners, or Prevention is Better than Cure

"YES, Mary," and I yawned sleepily as I switched off the electric light, "I am willing to agree that the lobster-salad and the coffee were excellent, but if at the Thompsons' to-morrow evening the conversation shows the least sign of veering in the direction of that everlasting 'Baby-Week,' do not misunderstand me if I remind you that we *must* be home by ten."

* * * *

"That makes the seventh to-day at this corner, and it is only four o'clock," said the old gentleman with the amiable smile and the big white beard.

"The seventh what?" I asked him.

"The seventh accident, of course; didn't you see the ambulance? But you must be a stranger," he continued, "or you would know how carefully we look after them, record their numbers, and plot diagrams annually to show the effect of our improved methods."

I admitted that I had just arrived for the first time in the city, and, having an hour on my hands, I persuaded him, with but slight difficulty, to share a bottle with me in a neighbouring hostelry, and, warming up after the first glass, he proceeded somewhat as follows:—

"Years ago the corners were all right, and accidents were comparatively rare; but as motor-cars and taxis increased in number and speed, so did the accidents. In the year 1900 it became so serious that we insisted on the publication of the figures, and you can imagine the consternation of the citizens when it was announced that during that year out of every five persons who walked through the town regularly one was either killed or injured. But," he continued in a soothing voice, and with a still more amiable smile, for he had noted my look of alarm, "we manage things far better now; last year, for instance, the number was one in ten, and there were far fewer deaths among the injured. Oh, we went into the matter very thoroughly, I can assure you; special committees were formed at the Town Hall to investigate the evidence brought before them, and, realizing the seriousness of the situation, they took drastic steps. The corners were first classified as 'serious,' 'very bad,' and 'bad.' In all cases danger-signs were put up; in the 'serious' corners small hospitals were built close at hand; near the 'very bad' corners we placed ambulance rooms; while attached to a pillar-box near each 'bad' corner you will find an ambulance cupboard containing everything necessary for first-aid treatment, and a telephone by means of which medical assistance can be obtained if necessary.

"Of course, it costs a lot of money," he continued hurriedly, as if fearing an interruption, "but death and injury are serious matters; and though the precautions I have mentioned were naturally expensive, we did not stop even at them. No, we decided that if the trouble was to be brought within reasonable limits, we must begin with the children. At the present time in this city, I am proud to say, every scholar over twelve years of age attends a course of lectures and practical demonstrations on 'Accidents, and how to avoid them,' and another course on 'First aid to the injured.' We also roped in the parents. That was a grand move, for they are able to understand more advanced lectures on all the subjects connected with street accidents. You would be astonished, for example, if you knew what big attendances we get at our courses of lectures on 'Motor-cars from the point of view of the pedestrian,' and 'Road-making materials and their effects on wounds.'

"That subject reminds me that for the last year or so all the conveyances used in this city, and the roads near the 'serious' corners, are sprayed with disinfectant daily; special depots having been constructed in the outskirts of the town to deal with incoming traffic. Perhaps that helps you to understand how we tackled the problem and got the rate down to one in ten. And then once a year we have an 'Accident Week,' during which great public meetings are held in our biggest halls, and special films are exhibited in all the picture-palaces showing the dangers of awkward corners, and all the steps we are taking to minimize their effects."

"But surely," said I, "would it not have been far simpler and more effective to round off the corners so that pedestrians could see the traffic more easily?"

"Round off the corners!" and here the smile died from his lips and an ugly look came into his eyes, "why, you are as mad as that other fool who said much the same thing three or four years ago. He went before the Traffic Committee at the Town Hall, and they assured him that the matter was well in hand, and that everything possible was being done. They pointed out to him that the corners in question were private property (he hadn't thought of that, poor fool!), and that, anyhow, their Committee only dealt with traffic problems and not with the shape of buildings. But, like many other cranks, he was pig-headed, and took his obsession before the Building Line Committee, who, of course, told him that they could not possibly be expected to deal with questions affecting both building lines *and* traffic, though they drew his attention to the fact that the 'New Buildings Committee' saw that all *new* corners were properly rounded."

"Surely," I protested, "it would have been possible to appoint a joint committee?"

"Don't talk to me about joint committees!" he said, and the ugly look in his eye grew uglier. "I see you cannot listen to reason, but you *will* listen to this." And here he produced from a large hand-bag a loudly ticking instrument which looked like a cross between a bomb and an alarum clock. This he put carefully on the table, and I noticed that the hands pointed to 4.59. "When that strikes five, you and I and this hotel will be blown to atoms, so you had better empty your glass."

As he said this an ominous B-r-r-h proceeded from the clock, there was a loud roar, and then——

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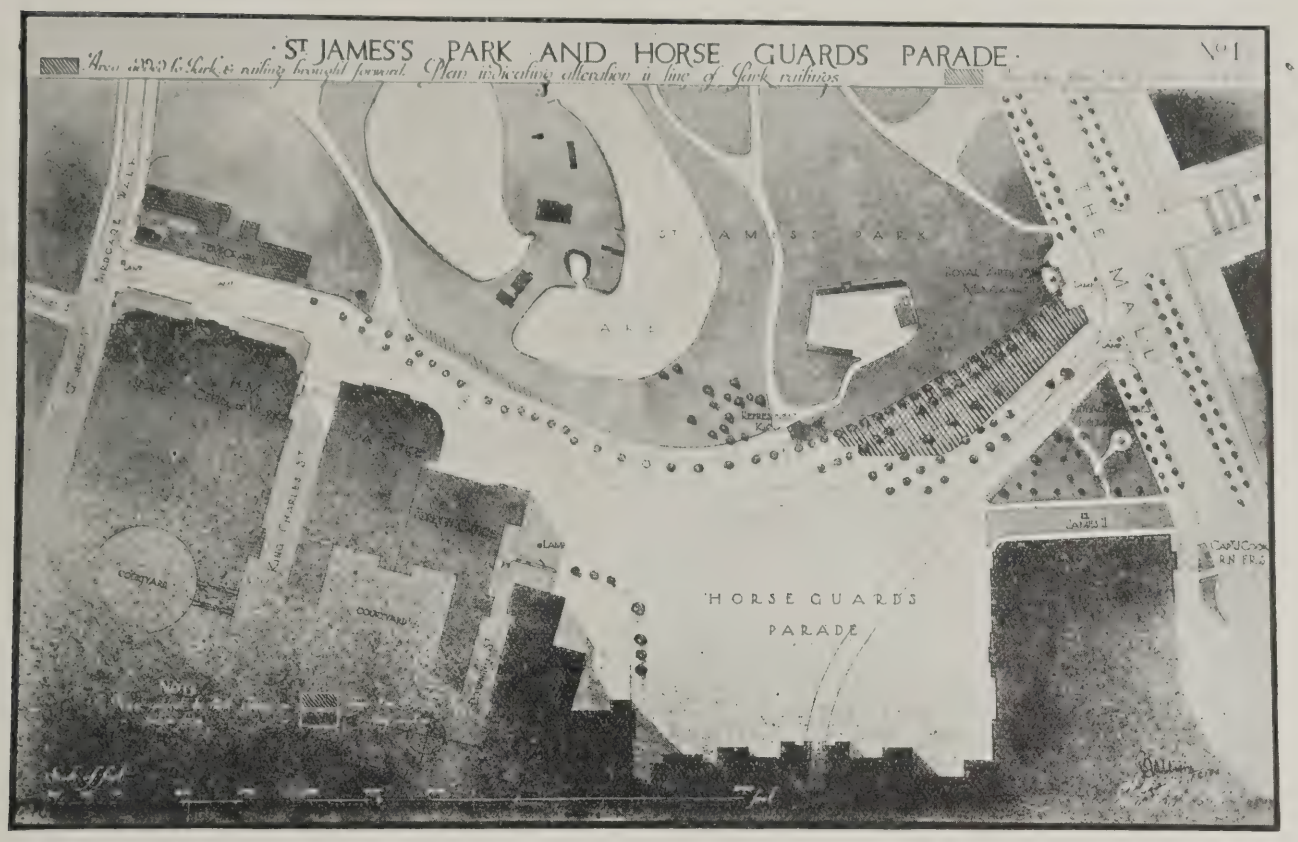
I awoke to find that the alarum clock at the side of my bed was ringing. I got up hurriedly, stopped it with a frantic dash, and then looked out with relief through the open window, out over the wooded valley to where the sun was shining on the western hills. From the bathroom I saw another picture—the spire of the Cathedral and the tower of the Town Hall rising through a haze. And as I thought of all that was concealed by that mist—the thousands of dreary, deadly houses in mean courts and streets, the tens of thousands of little children who ought to have been sleeping in the pure, sweet air outside the grimy city, and of the wearing, endless toil of all their mothers—as I thought of these things my dream was interpreted for me.

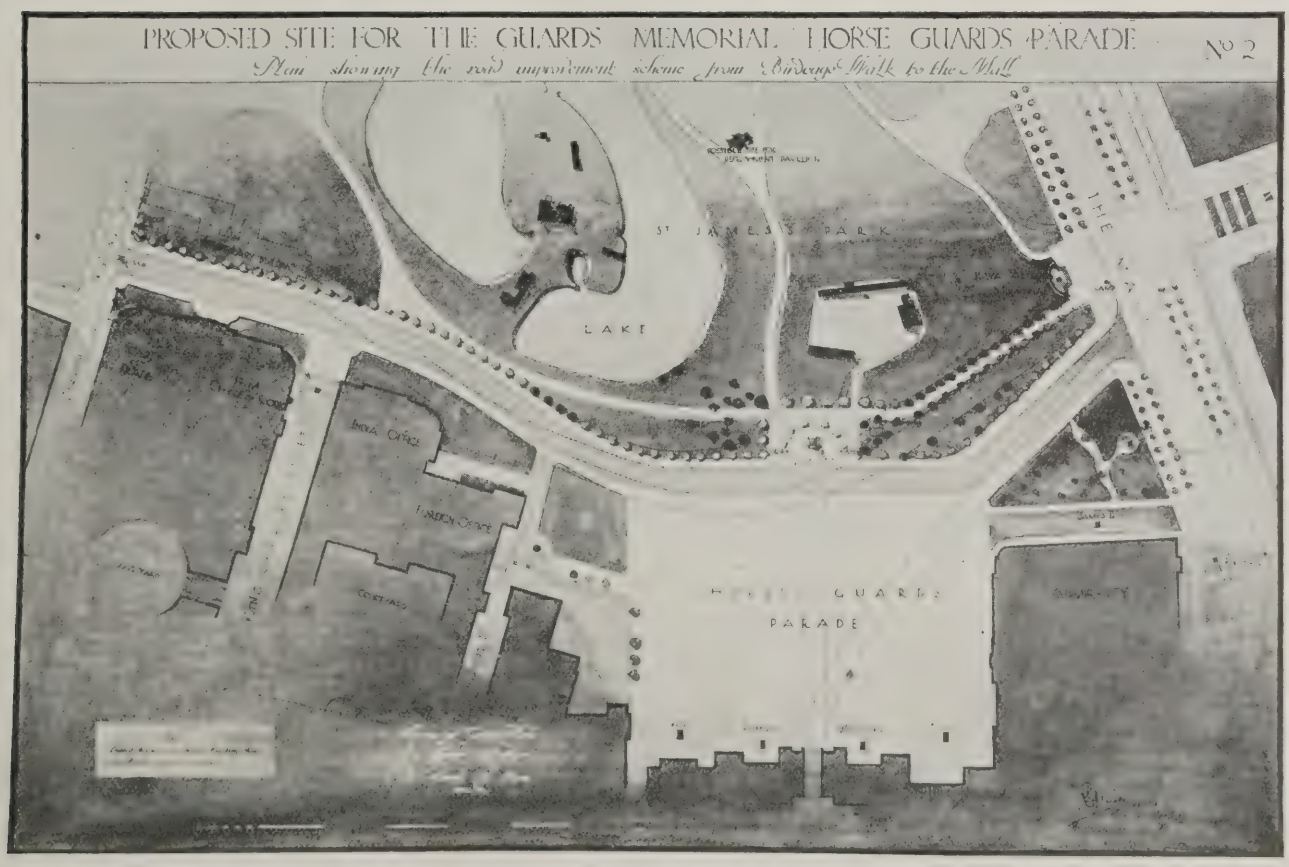
W. S. PURCHON.

The Guards' Memorial Improvement Scheme

In connection with the Guards' Memorial, which it is proposed to erect in St James's Park, the Office of Works have prepared an interesting improvement scheme for the western boundary of Horse Guards Parade. The scheme is one that would effect a great improvement at a spot that is at present distinguished for its total lack of uniformity. Horse Guards Parade itself is fairly regular in shape, with, on its eastern side Kent's Horse Guards building, on its northern side the new Admiralty block and on its southern side the old Treasury building, though there is a good deal amiss with the south-west corner, where Scott's Foreign Office tower conspires with the gardens of Downing Street to spoil the effect. On the open, or park side no attempt has been made to preserve the formality of the "square," the roadway leading to the Mall curving away to the north-west and losing itself among a young forest of trees that seems to have been specially planted to confuse and mystify vehicular traffic. It is with the idea of straightening off this side, and improving the roadway flanking the park that the Office of Works scheme has been prepared. Study of the drawings will show that the scheme is well thought out and cleverly presented. Obviously it would effect a real improvement in the amenities, besides providing an excellent site for the Guards' Memorial axial with the Horse Guards building. Also it has the supreme merit of adding about half an acre to the park. The only drawback to the scheme is that it would involve the removal of several trees from the plantation to which reference has already been made. The loss is not one that we should greatly grieve over, but we fear that the threat of it will afford the lay press some ground for sentimental objections. The Office of Works is to be congratulated on a well-considered proposal, which ought to be put into effect.

Replanning of the Eastern boundary of St. James's Park, in connection with the Guards' Memorial





In connection with the scheme for placing the Guards' Memorial on the eastern boundary of St. James's Park, facing the Horse Guards Parade, the above plans have been prepared by H.M. Office of Works. They indicate the proposed site and the alterations to the roadway which will be necessary. The plans have been placed on exhibition in the Central Court of the Victoria and Albert Museum, and will remain on view for a few weeks. For comment see opposite page.

English and Russian Art

The first annual exhibition of the New Society of Arts (Suffolk Street Galleries) and the first Russian exhibition of Arts and Crafts (Whitechapel Art Gallery) stand to one another like æsthetic antipodes. The Russian one, in spite of its almost dangerous tentative trend and over-richness, is alive with experiments; the other, of the New Society of Art, is but a kind of soporific sesquipedalianism. Indeed, the last one should be still-born; there is no justification for its inception, and certainly no cogent reason why it should live ever after. Probably the direct cause of its failure lies in an abnormal plethora of members, very few of whom can think according to the period in which they live. As one walks among the 398 exhibits, one sees but a vast "réchauffé" of similar works by abler hands. "Frontier Forts," by S. Leake, is a thinly disguised D. Y. Cameron; "Jack Frost, engraver," by Hilda Hechle, is strongly reminiscent of E. Dulac; "Evening at Torcello," by B. Keir, is an indubitable cross between C. Bradshaw and W. Walcot; "The Slave," by H. Keen, makes one hover between Oddle and Austin Spare as the author; and if imitation is a form of flattery, then the Hon. John Collier must be pleased with "Imprisoned Soul," by M. Lindsay Williams. This picture, together with the water-colour entitled the "Monk's Pool," by C. F. Lower, are the most successful attempts to make art and coloured photography coincide in all their aspects. In fact, the best things there are a few small water-colours, such as Miss E. Gledstane's "Backyards in Kensington," and Miss F. V. Shoosmith's "A Welsh Moorland." Most of the remaining seem to be either firstlings or the tired products of minds streaked with caducity. They require allopathic treatment.

But the Russians! With the Russian show one does enter a region of buoyancy and utmost fertility. A very high proportion breathe the spirit of spontaneous joy. They intrigue; they shock; they gratulate. . . . What more do you want? Yet, it is pretty certain that an average English public could not quaff such varied and strong beverage without a graded training. But that many exhibits did appeal to such public is proved by the number sold. For instance, the series of drawings by Boris Grigorieff was a revelation of the evocative power which an ordinary soft pencil has in the hands of a sensitive artist. They were sold, because there is an appealing feeling of aristocratic opulency about them. It is as though Eric Kennington's draughtsmanship was made to serve the lyric austerity of Paul Nash's landscapes. Nothing quite like it has been seen before in London. Another Russian artist whose water-colours are well-nigh a perfect exposition of the principle governing this alluring medium is Dagoussia Mouet. He is the Cézanne of water-colourists. He does apply his washes with lucidity and a great economy of means. Of sculptors, two stand out pre-eminently. The two "Heads" in hardwood of Jacques Loutchansky have got that deal of power one gets in Epstein's work, and the "Bust of a Virgin" in black granite, by O. Miestchaninoff, belongs to the same rare class of work. With the possible exception of one or two living sculptors, no one within these shores can ever turn out carving of this character. It is therefore extraordinary that such consummate works of art are not bought by our public galleries when the chance of doing so occurs.

All London has seen "Children's Tales" and "Chout," so that it knows a little about the art of Lariouoff; but for his more esoteric efforts—the rayonnist stuff—one can only see it at this exhibition. He and Nathalie Gontcharoua are probably the best known of choragic artists; but apart from great brilliancy and fecundity, both have dangerous leanings towards forcing their medium. The rest is able to a less degree, but it is constant that almost every artist has something definite to say, and says it fearlessly enough. Hence the value of this Russian exhibition. One feels that each artist has what our friend Horace calls *Judicium subtile videndis artibus*, which, as you will doubtless say, is worth having.

G. HOLT.

Wages in the Building Industry

The National Wages and Conditions Council for the Building Industry at meetings held on July 14 and 15 dealt with, and gave decisions on, the following matters :—

Mr. Stephen Easten was elected chairman of the Council, and Mr. G. Hicks was elected vice-chairman. Messrs. A. G. White and R. Coppock were elected joint secretaries.

The Council considered the evidence taken at the previous meetings upon applications from the North-Western Area for variations of the grades in which the various towns are at present placed. The Council decided, in view of the fact that the Area Council had lately carefully regraded the whole of this area, to make no alteration in the present gradings.

Consideration was also given to the evidence taken previously upon an application for regrading of Plymouth, Bath, Gloucester, Swindon, Cheltenham, and Hereford which had been referred to this Council from the National Board of Conciliation, the case having been *sub judice* for many months. The Council decided that these towns should have their rate of wages raised by one penny per hour as from August 1 next.

The Council then heard evidence upon fresh applications received in accordance with the rules of the Council for variations in existing grades from various areas.

The Council had previously decided that it is a necessary corollary to its constitution that a scheme should be prepared to link up the Council with the existing Area Joint Councils so that these bodies should give preliminary consideration to questions of grading and assist the Council by the requisite local information as to the relative positions of the various localities.

In consequence of the views to that effect put forward to the applicants by the Council, the applications from the following areas were withdrawn for consideration first by their respective Area Councils: Yorkshire, Midlands, South Wales, and Scotland.

Evidence was heard from the Southern Counties, the Eastern Counties, and South-Western Counties Areas, upon their applications for a general regrading of the areas.

The Council gave the following general decision upon the regrading applications: "Having regard to the principle accepted by all the parties concerned by the adoption by this Council of the operation of the sliding scale, and the very recent decision of this Council, the Council cannot see its way to evade the results by either increasing or decreasing wages on applications for regrading. That where regrading is necessary the parties shall first bring the matter before the Regional Joint Councils in accordance with its previous decision."

The Council considered the notice from the employers for an extension of the 44 hour week. After some discussion it was agreed to defer the further consideration of this matter to the next meeting.

The Council considered the question of whether any variation should be made in the rates of wages consequent upon a variation in the cost of living, but a difference of opinion arose as to the Ministry of Labour Index Figures to be taken in arriving at a decision. As agreement could not be reached in the Council, it was resolved that four representatives from each side should be appointed as arbitrators, and that the arbitrators be instructed to obtain advice necessary to enable them to come to an agreement prior to August 1.

A meeting of the Board of Arbitrators was held on July 20, when the following decision was unanimously arrived at: "That this Board of Arbitrators decides, after hearing all the evidence and receiving the advice of Mr. W. H. Stoker, K.C., that under Clause 14 of the National Wages and Conditions Council Agreement, there should be a further reduction of 1½d. per hour in all grades on and after August 1, 1921; but in view of the misunderstanding which existed, this Board agrees and decides that the reduction shall take place as to 1d. per hour on and after August 1, 1921, and as to the remaining ½d. per hour on and after September 1, 1921."

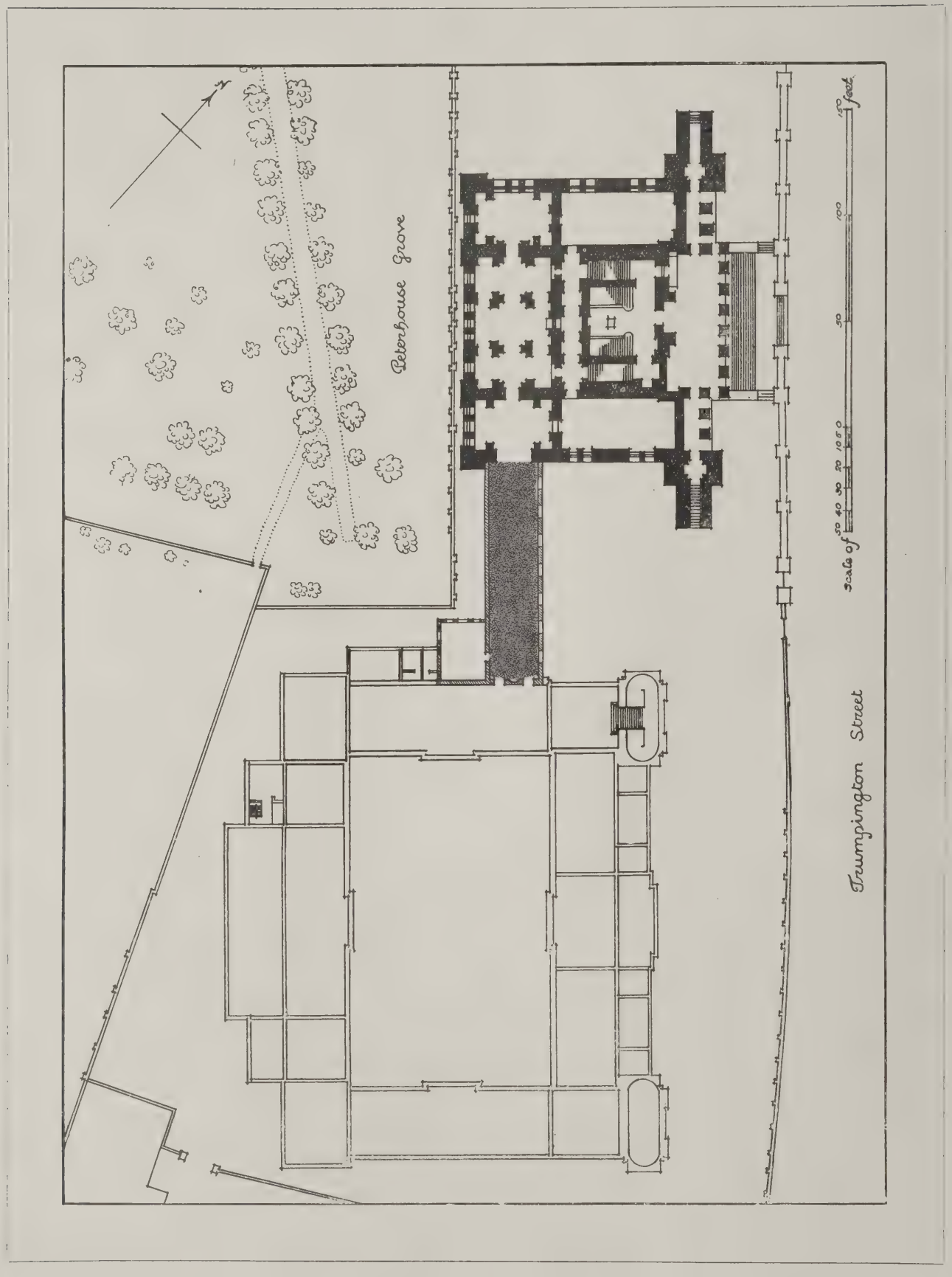
A. G. WHITE.
R. COPPOCK. } Joint Secretaries.

The New Marlay Wing, Fitzwilliam Museum

The drawings illustrated on pages 130-1 show the scheme prepared by Messrs. Smith and Brewer, architects, for additions to the Fitzwilliam Museum.

The architects in their report state that "the difficulty of enlarging a building of the character and merit of the old museum is increased in this case by the necessity that the additions shall be made on one side of it only, and we feel that it is most important that the new building should be definitely subordinated to the old.

"In the scheme we are submitting we have endeavoured to do this by keeping the new block (1) some 30 ft. back from the present front; (2) somewhat less high; and (3) of a simpler architectural character. The proposed new buildings would, when complete, form a quadrangle enclosing a court 156 ft. by 96 ft., with a gallery connecting them with the old museum."



PLAN SHOWING THE NEW MARLAY WING TO THE FITZWILLIAM MUSEUM, CAMBRIDGE.
SMITH AND BREWER, ARCHITECTS

Museum, Cambridge

Smith and Brewer, Architects



The above drawing shows part of the projected additions to the Fitzwilliam Museum, Cambridge (which appears on the right of the view). A brick and stone treatment is shown, but the question of material is not yet decided. The portion now being built (indicated by stipple in the plan on page 130) is to be wholly of stone. Some further particulars are given on page 129.

The Moment of Inertia

By PERCY J. WALDRAM

A CORRESPONDENT writes: "Please tell me how to find the moment of inertia for a circular column and also for an angle iron. The approximate solution for a steel joist is easy, namely, by the use of the formula $\frac{1}{12}ba^3$, but it is difficult to see how the same formula can be applied to the sections mentioned."

The moment of inertia (Ix) of any section about any axis x-x consists of the sum of the areas of each thin lamina of material parallel to x-x multiplied by the square of its distance from x-x.

For the calculation to be absolutely accurate, the laminæ considered should be infinitely thin; but for ordinary structural calculations no appreciable error is involved by considering laminæ $\frac{1}{10}$ in. thick. It is therefore possible to lay down any structural section, however irregular, on squared paper, and to calculate I directly. This method is tedious, and is seldom used except for aeroplane spars, etc.

The maxima and minima values of I have been calculated for all British Standard rolled sections, and tables of these and of other structural properties have been published. Slight variations from the standard thickness can be allowed for approximately by multiplying the given values of I by the ratio of the areas or weights of the varied to the standard sections.

The I of ordinary geometrical figures is given in most text books. The following are examples. In each case b=breadth, d=depth or diameter, r=radius, A=area, and x-x is the axis about which I is calculated.

Rectangle x-x=centroid parallel to base $\frac{bd^3}{12}$ or $\frac{Ad^2}{12}$

Rectangle x-x = base $\frac{bd^3}{3}$ or $\frac{Ad^2}{3}$

Triangle x-x=centroid parallel to base $\frac{bd^3}{36}$ or $\frac{Ad^2}{18}$

Circle x-x through centre $\frac{\pi r^4}{4}$ or $\cdot 049d^4$ or $\frac{Ad^2}{16}$

With the assistance of this and of similar data it is possible to calculate easily the I of any geometrical section about any given axis x-x by means of the following rule:—

(a) Divide the section into convenient constituent figures, such as rectangles, triangles, quadrants, etc., whose individual I can be calculated.

(b) Calculate the I of each constituent figure about a centroid (i.e., an axis passing through the centre of gravity) parallel to x-x.

(c) Multiply the area of each constituent figure by the square of the distance between its centroid and x-x.

The sum of (b) and (c) gives the I of the whole figure about xx.

It follows from this that the I of the section about any axis parallel to x-x is this value $\pm$ the total area $\times$ the square of the distance between the two axes, according to whether the first axis is nearer to the centroid than the second axis, or vice versa.

Thus the I of a rectangle about its centroid is $\frac{bd^3}{12}$; its I about its base is

$$\frac{bd^3}{12} + \left(bd \times \frac{d^2}{4}\right) = \frac{bd^3}{3}$$

A considerable amount of time can often be saved by noting that the I of a figure about any axis x-x is the I of a circumscribing rectangle about x-x less the I about x-x of any missing parts. Thus the I of an I section of breadth b and depth d with square corners and parallel sides is $\frac{bd^3}{12}$ less the I of the two missing rectangles between the flanges.

The I of a ring or circular hollow column is the I of the outer circle less the I of the inner circle. Or if the radius of the former be R and of the latter r, then $I = \frac{\pi}{4}\left(R^4 - r^4\right)$

The calculation of the I of an L section on an axis passing through the centre of gravity and parallel to either side is comparatively simple. Take for example the 6 in. by $3\frac{1}{2}$ in. by $\frac{1}{2}$ in. L section shown in Fig. 2. To simplify the calculation the angles may be considered as square without serious error.

$$Ibb = \frac{\frac{1}{2}\times 6^3}{12} + \frac{3\times\frac{1}{2}^3}{12} + \left(6\times\tfrac{1}{2}\times 3^2\right) + \left(3\times\tfrac{1}{2}\times 5\tfrac{3}{4}^2\right)$$

$$= 9 + \tfrac{1}{32} + 27 + 491\tfrac{9}{32} = 85\tfrac{5}{8}$$

or $\frac{3\frac{1}{2}\times 6^3}{3} - \frac{3\times 5\frac{1}{2}^3}{3} = 252 - 166\frac{3}{8} = 85\frac{5}{8}$

$$Ixx = 85\tfrac{5}{8} - \left(\tfrac{9}{2}\times 3\tfrac{1}{12}\right)^2 = 16{\cdot}6$$

Similarly $Idd = 36{\cdot}25$

and $Iyy = 36{\cdot}25 - \left(\frac{9}{2}\times\frac{8^2}{3^2}\right) = 4{\cdot}25$

These values can be used when the L section forms part of a riveted-up section, and is therefore forced to bend on an axis parallel to one side; but they are not the greatest and least moments of inertia when the section is acting independently, as for example when an L section is used as a compression member in a roof truss. Unless restricted, such a member will tend to bend in a diagonal direction of least stiffness which is parallel to neither side.

It can be shown that when the maximum and minimum I of a section are known and are at right angles to each other the moments of inertia in all other directions are given by the various axes of an ellipse of which the major and minor axes represent to scale the maximum and minimum I. In such an ellipse the radii of gyration are usually substituted for the values of I.

When the only known values for I or k are at right angles to each other, but are not the maximum and minimum values, the latter can be found by the following rules based on the geometric properties of an ellipse.

A third value for Iw must first be found about an axis ww inclined at an angle of 45° to the known axes about which the known values of I are calculated. The following equations then give the tangent of the angle α between the axis of minimum Iuu and the known axis xx, and the values of the minimum Iuu and the maximum Ivv.

(1) $\text{Tan } 2\alpha = \dfrac{Ixx + Iyy - 2Iww}{Iyy - Ixx}$

(2) $\text{Maximum I} = Iuu = \frac{1}{2}\left(Ixx + Iyy + \dfrac{Ixx - Iyy}{\cos 2\alpha}\right)$

(3) $\text{Minimum I} = Ivv = \frac{1}{2}\left(Ixx + Iyy - \dfrac{Ixx - Iyy}{\cos 2\alpha}\right)$

The approximate calculation of Iww about an axis inclined at 45° to the sides of an L section is comparatively simple if the sectional area projected into that plane be assumed to be the rectangle to which it closely approximates. The error involved by this assumption is negligible for practical purposes.

Take for example the 4 in. by 4 in. by 3 in. equal-sided angle (British Standard equal angle No. 11) shown in Fig. 1. The projected thickness is $.3 \times \sqrt{2} = .4242$, and the cross-sectional area being 2.31 sq. in., the length of the projected rectangle

$$= \frac{2{\cdot}31}{{\cdot}4242} = 5{\cdot}44$$

$\therefore I\,uu = Iww$ will be

$$\frac{{\cdot}4242 \times 5{\cdot}44^3}{12} = 5{\cdot}68$$

The exactly calculated value of Iuu given in the published properties is 5.531. A similarly projected rectangle to give the value of Ivv would have a width of .8484 in., and a length of 2.72 in., and

$$Ivv = \frac{{\cdot}8484 \times 2{\cdot}72^3}{12} = 1{\cdot}42$$

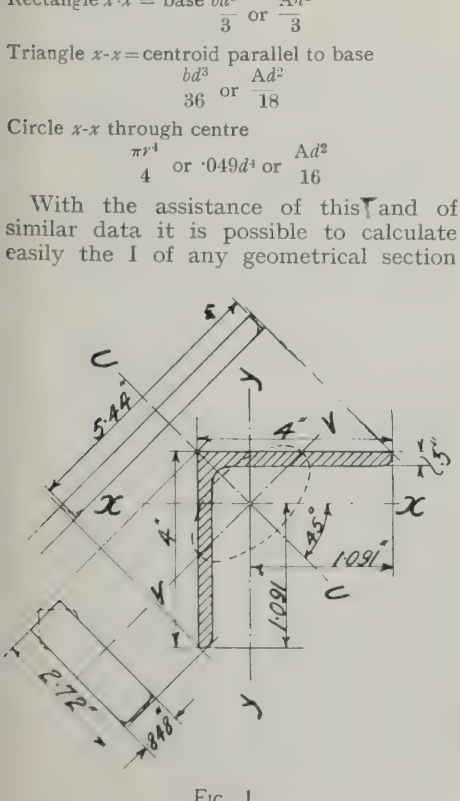


FIG. 1.

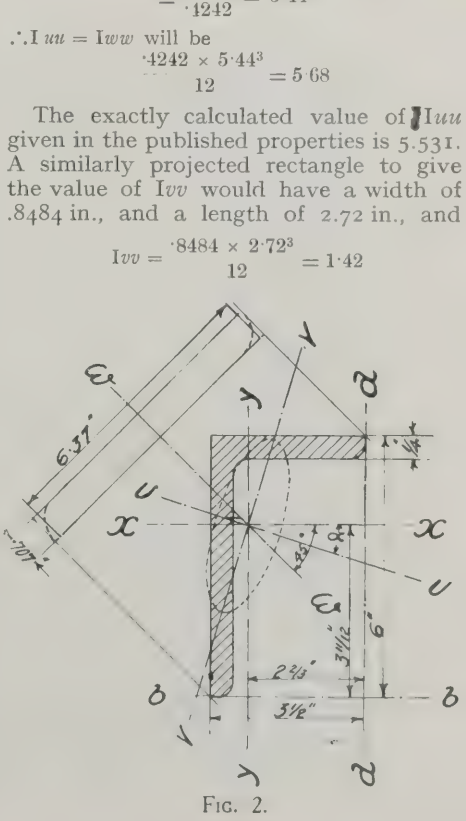


FIG. 2.

The value of Ivv given in the published tables is 1.423.

In the case of equal angles the fact that Ixx and Iyy are equal shows that the maximum and minimum values of I must be in the direction of uu and vv.

Considering again the section shown in Fig. 2, the projected thickness in the direction ww being $.5'' \times \sqrt{2} = .707''$, and the cross-sectional area being 4.5 sq. in., the length of the projected rectangle will be $\frac{4.5}{.707} = 6.37''$

or $Iww = \frac{.707 \times 6.37^3}{12} = 15.25.$

By Equation (1) Tan. $2\alpha = \frac{16.6 + 4.25 - 30.5}{-12.35}$

$$= \frac{-9.65}{-12.35} = .78$$

$$\therefore 2\alpha = 38^\circ \text{ and } \cos 2\alpha = .7880$$

By Equation (2) $Iu = \frac{1}{2}\left(16.6 + 4.25 + \frac{16.6 - 4.25}{.7880}\right)$

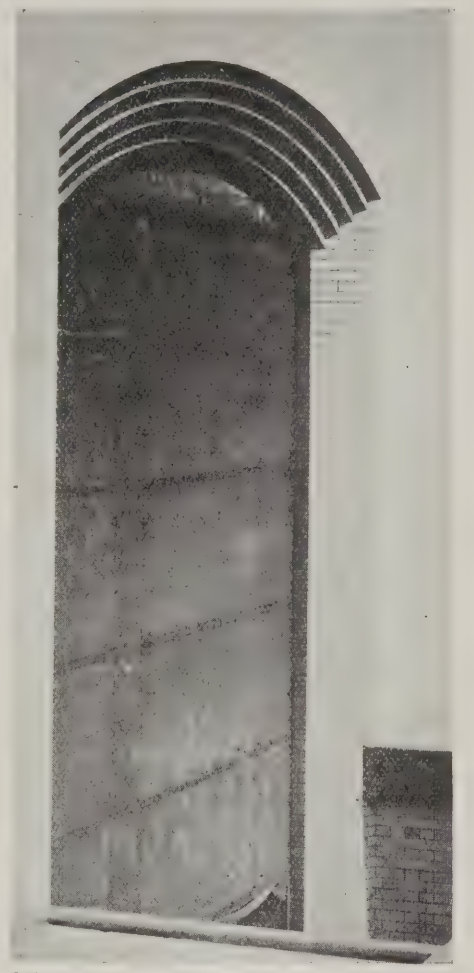
$$= 18.15$$

and $Iv = \frac{1}{2}(20.85 - 15.45) = 2.7$

The nearest British Standard section of which the properties are published is BSUA No. 20, 6 in. by $3\frac{1}{2}$ in. by $\frac{3}{8}$ in., and the values of Ix, Iy, Iu, and Iv for the section shown should be approximately equal to those of BSUA 20 multiplied by the ratio of the areas (or weights) of the two sections, viz., by $\frac{4.5}{3.435}$

The following comparison shows that the values as calculated by the above methods are practically identical with those arrived at by the method of approximation recommended by the Standards Committee.

	Ix	Iy	Iu	Iv
BSUA 20 ..	12.646	3.225	13.908	1.963
6 in. × $3\frac{1}{2}$ in. × $\frac{1}{2}$ in. approximated from BSUA 20	16.6	4.23	18.2	2.58
Ditto calculated from projected rectangle and Equations (2) and (3) ..	16.6	4.25	18.15	2.7



DETAIL OF CAMBER-ARCHED WINDOW IN GLAZED BRICK, NEW COUNTY HALL

Details of Science and Technical Buildings

In continuation of the series of drawings of science and technical buildings, specially prepared for this JOURNAL by Messrs. A. W. S. and Kenneth M. B. Cross, we show this week details of working-benches for a laboratory. In most up-to-date laboratories working-benches are placed at right angles to the windows in the side walls of the building, and it is usually found economical in floor space to arrange them in double formation back to back. Gangways of about 5 ft. should be provided in order that students may work undisturbed by passers by. The height of the teak bench-tops from the floor varies with the age of the students to be accommodated, but in the accompanying illustration the fittings are for the use of adults, and the tops are accordingly 3 ft. from the floor and 5 ft. across the double benches. Working space of 3 ft. 6 in. is allowed for each student, to whom is allocated the use of three drawers, two lockers, and a cupboard, together with an open shelf for dusters, etc., a waste-box, and a pneumatic trough which he shares with his neighbour. One sink, over which a pair of water taps threaded to take



THE NEW LONDON COUNTY HALL: GENERAL VIEW OF CENTRAL AREA, SHOWING GLAZED BRICK TREATMENT OF INNER WALLS.

india-rubber tubing is fitted, about 3 ft. 0 in. by 1 ft. 8 in. by 1 ft. 0 in. deep, serves four students, and the extract flues with canopies over them are common to two workers. Along the centre of the bench shelves are fitted, which are protected by ⅜ in. plate glass for the accommodation of reagent bottles. In cases in which the laboratory is intended for work of an advanced nature a larger number of shelves than is here indicated is often required. The wastes from the sinks are carried down to a central trough 4 in. deep running along the bench at the floor level.

Glazed Brickwork at the London County Hall

Few casual observers walking on the Victoria Embankment, or crossing Westminster Bridge, and glancing at the new London County Hall, now within measurable distance of completion, form any correct idea of its immense proportions. For instance, how many would realize that the interior contained about seven miles of corridors, or that a lighthouse-like structure to serve as a chimney-stack in connection with the central heating apparatus, etc., and rising to a height of 135 ft. from base to summit, was hidden away in one of the large areas ?

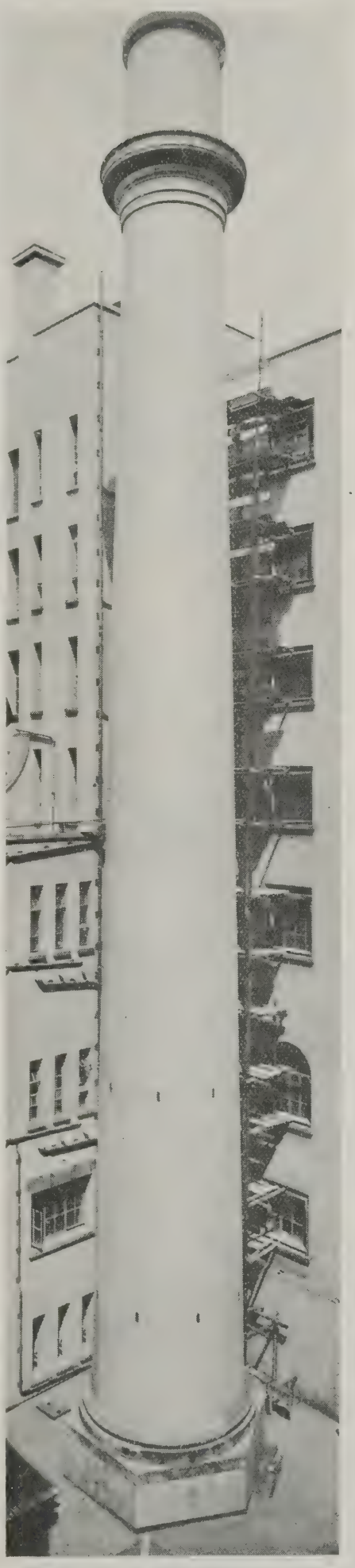
Glazed bricks have played an important part in the general scheme, and the chimney-stack above referred to is a unique example of the purpose to which they have been applied. It is entirely built of ivory-white glazed bricks (with lining of firebricks), each being radiated, and the whole forming an excellent example of skilled bricklaying. We believe this is the only stack in existence built of glazed bricks. Another feature to be noted in connection with the use of glazed bricks is the large number of camber-arched windows looking on to the spacious interior courtyards and areas. These camber-arches number 4,139, and contain 56,879 specially made bricks, and 17,381 special shapes, the whole being hand-made to template.

Special mention should be made of a fine concave sweep of glazed brickwork which faces one of the larger areas, and of a smaller convex sweep facing the river frontage. Both were carried out with ordinary glazed bricks.

It is doubtful whether there is any other building in which an equal number of glazed bricks have been used, or with so excellent an effect. Viewed from any of the upper windows, the appearance of lightness and cheerfulness of the interior spaces is remarkable. The illustration given of one of the larger areas, showing camber-arched windows set in a vast expanse of milk-white brickwork, is typical.

The interior of one of the lavatories is also illustrated, showing the walls of glazed partition bricks and tiles. The scheme here is the same — ivory-white, relieved with blue skirting and string-course.

The whole of the glazed bricks, with but slight exception, are the manufacture of the Sneyd Collieries Ltd., Burslem, Staffordshire, the total quantities supplied from their works, including partition bricks, etc., approximating two millions. Of this large total 93,569 were special made shapes. We are indebted to the Company's London representative Mr. R. L. Huxtable, of 12–14 Arthur Street, E.C.—for the above figures.



GLAZED BRICK CHIMNEY STACK AT THE LONDON COUNTY HALL.

The new London County Hall is being erected by Messrs. Holland and Hannen and Cubitts, Ltd., of Gray's Inn Road, from the designs of Mr. Ralph Knott, F.R.I.B.A., architect, in collaboration with Mr. W. E. Riley, F.R.I.B.A., M.Inst.C.E., R.B.A., official architect to the London County Council.

Law Reports

Repairs : Important Decision

Duke of Richmond and others v. Dewar and others.

July 16. Official Referees Court. Before Mr. E. A. Scott.

In this action the Duke of Richmond and the Trustees of the Cadogan Estates sought, on the ground of alleged breaches of covenants to repair, to recover from Dr. and Mrs. Dewar, the lessee, and the Cadogan Hotel Co. and the Association of Ex-Officers who were sub-tenants, possession of 132 Sloane Street and 243 Pavilion Road, Chelsea.

Mr. A. F. Clements appeared for the plaintiffs.—Mr. R. L. Levy was counsel for the first defendants, Dr. and Mrs. Dewar, Mr. H. B. Wells appeared for the Cadogan Hotel Co., and Mr. B. Hall for the Association of Ex-Officers. The latter defendants asked for relief as sub-tenants.

Mr. Clements, in opening the case, said that the premises ran from Sloane Street to Pavilion Road, and were the subject of a lease dated May 1885, to Walter Dewar. From 1908 to the present time a good deal of trouble had been experienced by plaintiffs, owing to defendants not keeping the premises in a proper state of repair. In August 1920 the premises were inspected by the surveyor to the Cadogan Estates, who made a schedule of repairs necessary to comply with the covenants of the lease, and on September 22 notice to repair was served with the schedule attached. After the notice had been served, Mr. Steward, the surveyor to the Cadogan Estates, again in December 1920 inspected the premises, but found that nothing had been done to comply with the notice. In March of this year Mr. Steward went with Mr. Wall, who was the agent of Dr. and Mrs. Dewar, to inspect the property, but found that nothing had been done to comply with a second notice which had been previously served. Some correspondence then took place between the solicitors for the plaintiffs and the agents for the defendants, and it was agreed that no good purpose could be served by a further inspection. Dr. Dewar agreed that repairs ought to have been done which had not been done. When Mr. Steward again inspected the premises on June 15 last, he found that some kind of an effort had been made to do the work, but only a superficial portion of it had been carried out. On July 7 Mr. Steward made an appointment to see the property again, as he had been told that the work had been practically completed. He found, however, that while something had been done it was nothing like the amount necessary to comply with the notice.

The Referee wished to know who were the parties to the action.

Mr. Clements explained that there had been an assignment of the lease in October 1907 to Mrs Dewar by Dr. Dewar. The Cadogan Hotel, occupied under an agreement between themselves, and Mrs. Dewar and the Association of Ex-Officers occupied under an agreement dated February 1921. Dr. and Mrs. Dewar were the main defendants, and their defence was that the notice had been substantially complied with, and that some of the repairs specified were not within the covenant.

Mr. Frederick Steward, the surveyor to the Cadogan Estate, in the course of his evidence, said that in August 1920 he inspected the premises, with which he had been acquainted for many years, and he prepared a schedule of dilapidations for the purpose of serving a notice under the covenants of the lease. He visited the premises again on September 11, and found that one or two trifling matters had been attended to, but really nothing had been done to comply with the notice. The repairs left undone were substantial.

In cross-examination, witness said he did not practise as a surveyor, and was not a member of any professional institution. The house in question was in Sloane Street, with a stable and mews behind. The ground floor of 132 was occupied by the Ex-Officers' Association for business purposes. It was originally a dwelling-house, and in 1915 was converted into flats. In 1917 notice to quit was served, and an action was brought but afterwards withdrawn.

Between the adjournment on Thursday and the continuation of the hearing on Friday, the Official Referee took the opportunity of making a personal inspection of the premises; he was satisfied that the general structural repairs had been carried out according to the covenants of the lease. There were, however, defects resulting from damp, and the drainage was defective.

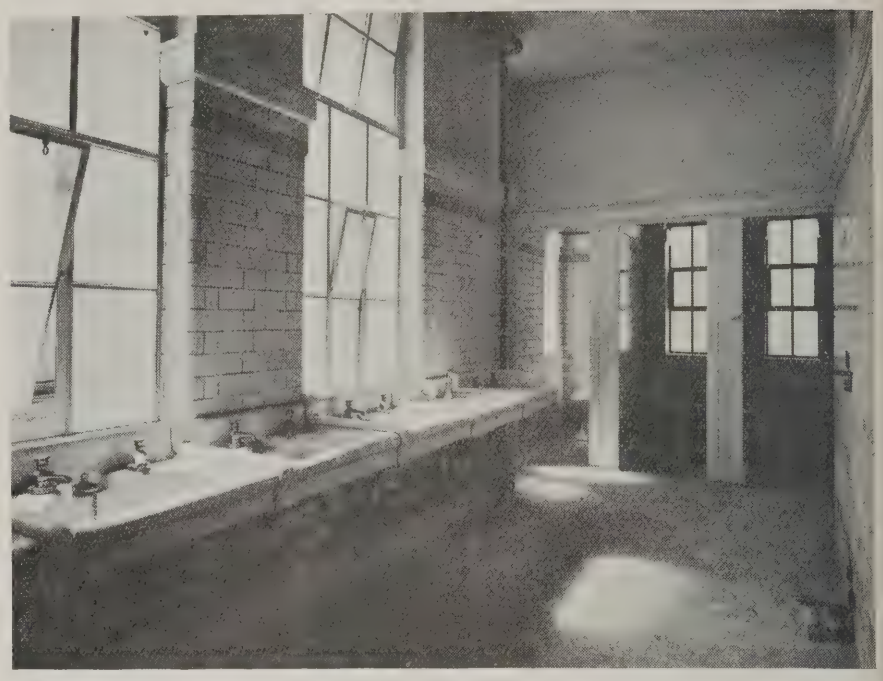
Mr. Steward, in further cross-examination, said that some of the internal repairs were required in consequence of the damp, which was the result of the bad condition of the pavement in the area. He believed some attempt had been made to repair with cement, but he did not think it was effective. There was certain pointing of the brickwork which was required, but he was unable to say that neglect to do this until the determination of the lease, four years hence, would be prejudicial to the structure. The building certainly would fall down if the pointing were not done until the end of the term.

Mr. Francis Edward James Smith, solicitor to the Cadogan Trustees, gave evidence as to negotiations which had taken place with the defendants with regard to surrender.

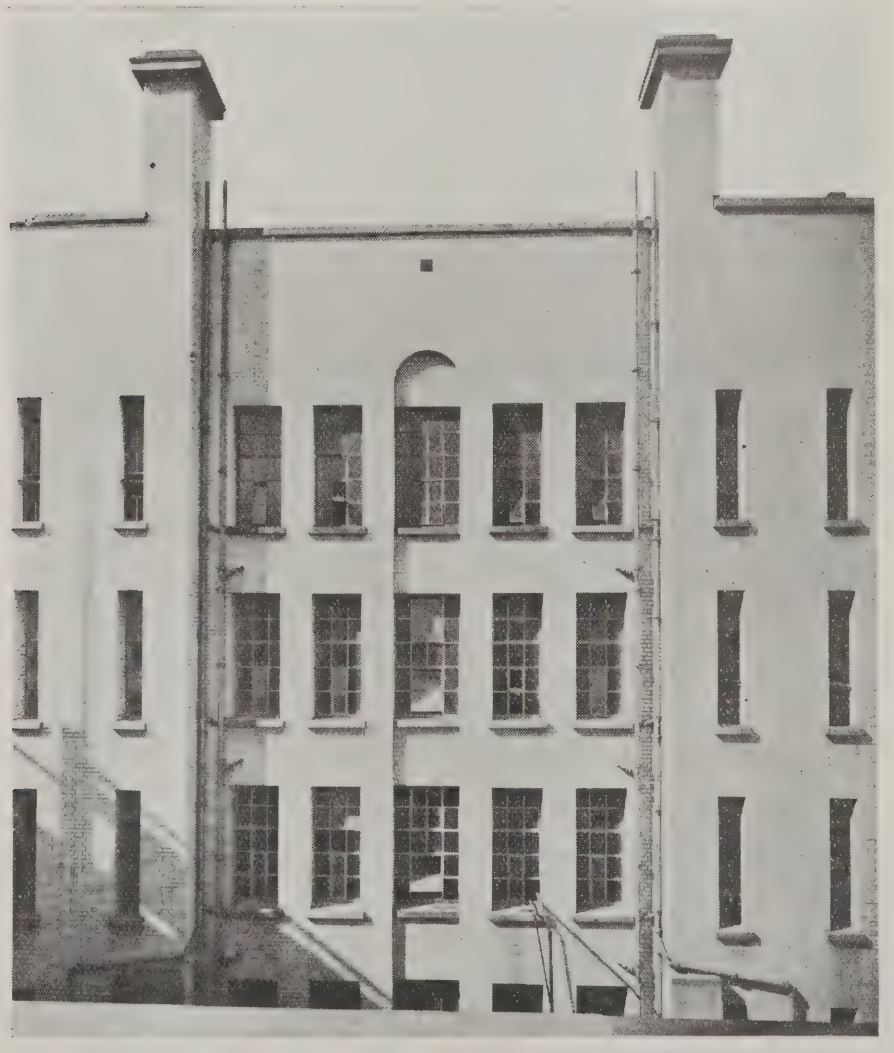
For the defence, Mr. Straughan, defendants' surveyor, gave evidence as to the result of an inspection which he had made, and said that in his opinion the repairs which had been done were sufficient to satisfy the covenants of the lease.

Dr. Dewar said that the house was converted into flats at the end of 1914–15, subsequently to which the whole of the interior had been redecorated from top to bottom. Other repairs were done by the tenants. In 1918 he spent £40 on the dining-room, and in 1919 he paid £100 and £75 for painting to Messrs. Harrods. Under the present notice he had spent in all £259 4s. 3d. Messrs. Harrods did the repairs to the roof, but at the time they were done it was impossible to get new zinc for love or money.

The Referee in the result gave judgment for the plaintiffs for £200 in respect of the dilapidations, with forfeiture, with costs, but granted a stay for 14 days on conditions.



ONE OF THE LAVATORIES IN THE NEW COUNTY HALL.

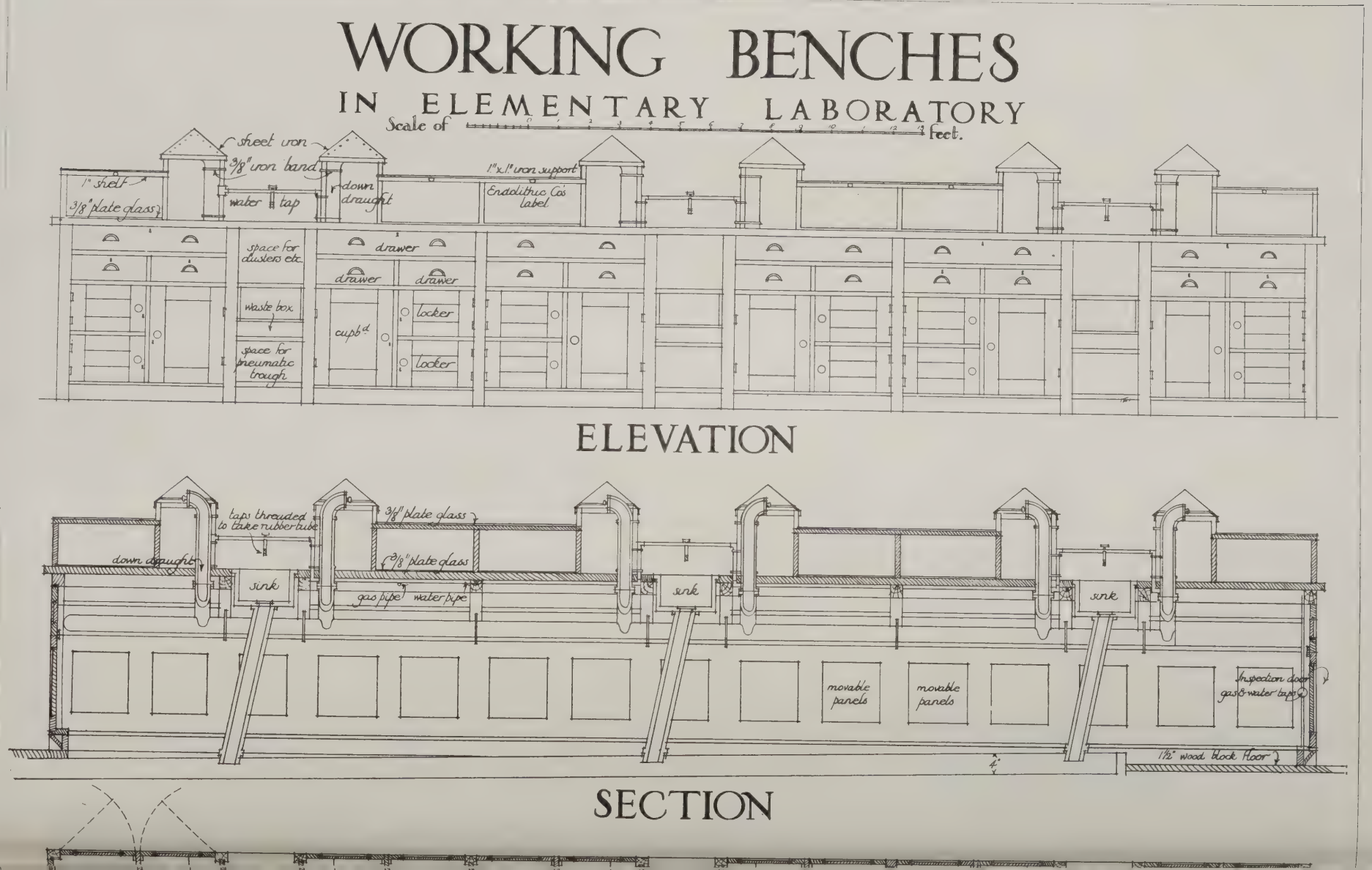


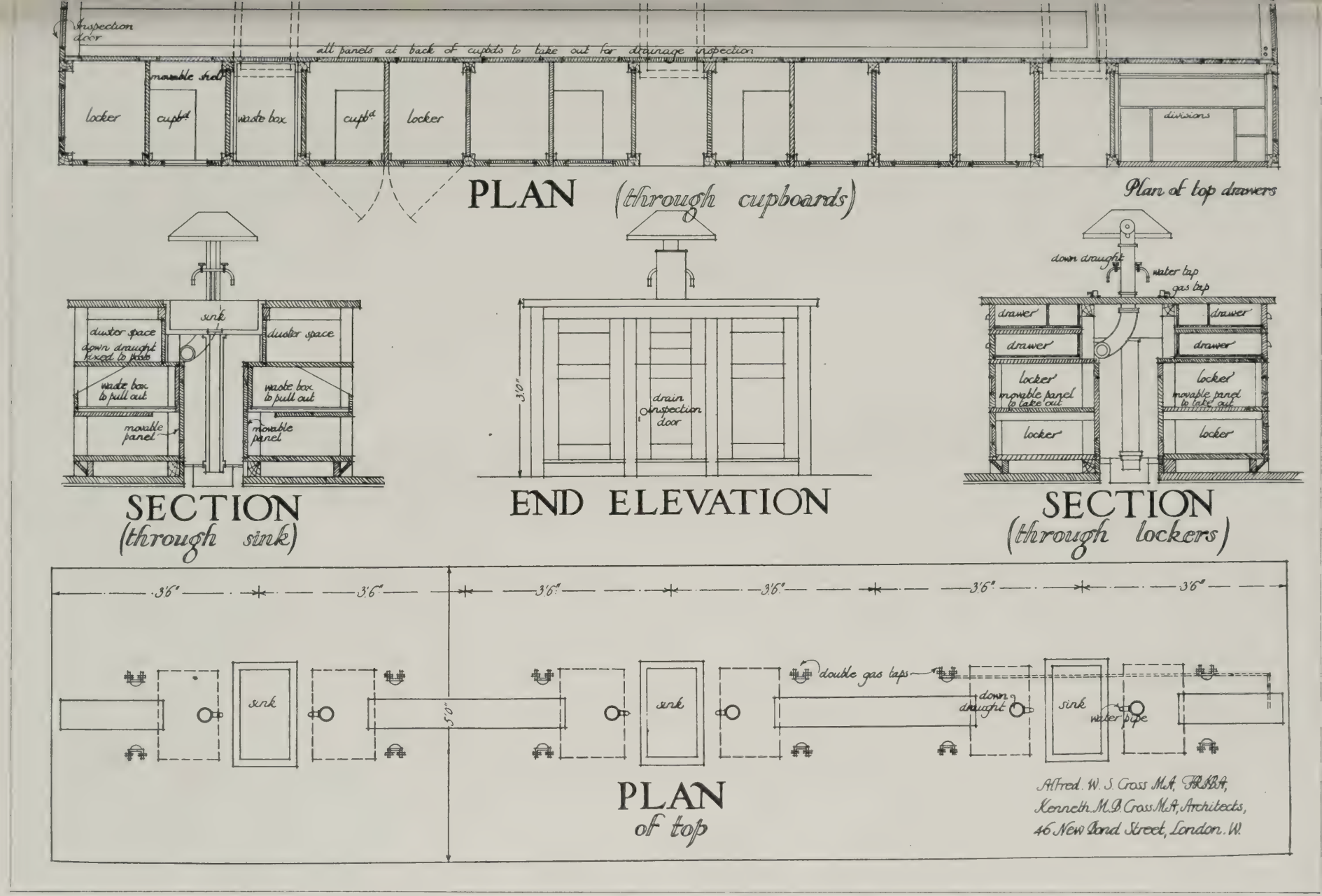
GLAZED BRICKWORK AT THE NEW LONDON COUNTY HALL.

Practical Notes for Architectural Draughtsmen (Series II) Technical Schools and Science Buildings.

5.—Working Benches in Elementary Laboratory

A. W. S. Cross, M.A., F.R.I.B.A., and Kenneth M. B. Cross, M.A., Architects





In most modern laboratories working-benches are placed at right angles to the windows in the side walls of the building, and the usual and most economical arrangement of them is in double formation back to back. Gangways about 5 ft. wide should be provided so that students may work undisturbed by passers by.
Some notes on the construction of the benches are given on page 134.

Romance Behind the Railway

r. Kipling once wrote a poem about mers. He might well write another it trains. We of to-day take our sport facilities as a matter of course, are savagely resentful if trains, y and swift, are not always ready to ey us whither we would go; but our ney completed, interest ceases, and wonders of mechanism and organiza- that have brought that self-same h-abused train service into being ern us not at all. Yet there is high ance behind it all, and he would be fully lacking in imagination who, n a peep behind the scenes, failed to ll to the magic of machinery, to the vels of electricity in harness, to the eless business of repair, improve- t, acquisition. There is the beauty perfect efficiency in repair-shop and ne-house, mystery in the glow of the aces, ordered wealth in the store- ls, and a sense of power over all.

he Metropolitan is a young railway, comparatively speaking, a little but the three E's—Enterprise, rgy, Enthusiasm—which constitute watchword are no empty boast. resentatives of the Press were given actical and singularly pleasant demon- tion of the multifarious activities of company when, at the invitation of directors, they took a tour through Metro-land country with which htly-hued posters have made us all iliar. A prominent member of the y was heard to complain that those tical posters had deceived him badly, much as the colouring of the country- was not what he had been led to ect. As a matter of fact, it was in- ely better. Nature is the finest st of all, and roofs and walls retouched ner leisurely fingers have a charm that printer's ink can convey; it were ally hopeless to portray the sweep ills and woods, the colour of skies cornfields, as seen from the windows of a Metropolitan railway carriage. The landscape is there—spacious and beautiful—and, we presume, designed for human enjoyment, but few Londoners would be able to avail themselves of the refreshment so near at hand were it not for the three E's already alluded to. Trains run their swift and constant way into the very heart of the open places, and create a veritable *rus in urbe*, linking up rural simplicities with the distressful bustle of everyday London existence.

There are many who would fain spend their days in town, escaping o' nights to a country home and a garden, and to such will Metro-land make a special appeal. One does not instinctively think of a railway company as a provider of homes for the people.

The association of ideas is new, but will become more familiar as time goes on and the seeds which the Metropolitan has sown, and sown moreover in some of England's kindliest soil, come to fruition. Fair acres have been bought in both suburban and truly rural districts, and wide building schemes are now in process of development. Roads and sewers are being made, and houses and bungalows of every shape and size springing up. Architects have set the seal of their individuality everywhere upon groups of villas, on country houses of a more pretentious type, on the layout of estates yet to be developed. Kingsbury Garden Village, Wembley Park, Chalk Hill, the beautiful Cedars estate at Rickmansworth, the very apple, we suspect, of the company's eye—these we have seen, the report of many other similar developments has reached us. Houses built by the company's architects are actually available; for those who prefer to build according to their own taste and fancy there is a wide choice of sites offered for sale.

The Metropolitan Railway is dealing a shrewd blow at that familiar bogey, the Housing Problem; it is creating business, offering a bait to prosperity, and, best of all, making a serious effort to render country joys an everyday luxury to the man in the street. E. N. B.

The British Empire Exhibition

The British Empire Exhibition, which will be held at Wembley Park, Middlesex, from April to October, 1923, will furnish a unique opportunity for a review of the Empire's resources and manifold activities on a scale not hitherto attempted or even possible. It will be the first Inter-Imperial Exhibition of a comprehensive character since the Colonial and Indian Exhibition of 1886, which was held at South Kensington.

The main objects of the exhibition may be grouped under four headings: First, it aims at taking stock of the resources of the Empire, and at showing how those which are as yet undeveloped or only partially utilized can be converted into wealth. Secondly, to make the peoples of the Empire better known to one another; to show how they work and how they play; what are their principal sources of wealth; what are the natural features of the lands they inhabit; how they have built and adorned their cities; the nature of their schools and of their factories; the houses they live in. Thirdly, there will be an important scientific side. A number of committees are being formed among men of the highest distinction in all branches of research and practice. These committees will arrange displays calculated to arouse public interest in all efforts to conquer disease and unhealthy conditions of existence. Housing and sanitation will be given especial prominence. All that is being done in these directions by the British peoples will be illustrated. Fourthly, the exhibition will enable established industries to show what they have to offer, and new industries to attract attention by proving what they can do.

Mr. J. W. Simpson, past President of the Royal Institute of British Architects, and Mr. Maxwell Ayrton, F.R.I.B.A., have been appointed architects to the exhibition.



TOWN HALL, CHESHAM

(Reproduced from "Metroland" by kind permission of the Metropolitan Railway Co.)

Local Authorities' Assisted Housing Schemes

The following statement on the future housing policy of the Government has been issued by the Ministry of Health :

The Government have decided that, for the time being at any rate, the number of houses to be constructed by local authorities and public utility societies is to be limited to the number built, building, or for which tenders have been approved, but that all expenditure on items properly chargeable to an assisted scheme which has been incurred with the approval of the Minister will rank for financial assistance and that the time for completion of work in hand will be extended as may be necessary. Local authorities should not therefore incur further commitments in completing the purchase of land, preparation of plans or otherwise except with the express sanction of the Minister.

It is not suggested that immediate steps should be taken to dispose of land already purchased which is not likely to be required for housing purposes in the near future, but it will be the duty of the local authority to see that full advantage is taken of any possibilities of obtaining income from any such sites and such income must be brought into the housing account.

Where the local authority so desire the Minister will be prepared to consider proposals for the disposal of housing land, either by way of appropriation for other municipal purposes subject to proper recoupment of the housing account, or by sale or lease on satisfactory terms. Local authorities will of course give special consideration to any proposals which they may receive for the purchase of land from them by persons undertaking to build working-class dwellings. The services of the officers of the Land Valuation Department will be available to local authorities for advice or assistance in negotiations for sale.

The Minister has under review the existing approved tenders and in so far as adjustments are possible he will be prepared to consider proposals for the erection of additional houses in special cases. The number of these houses must necessarily be very limited and in considering the approval of such further building as can be undertaken under the scheme it will be necessary to take into account the existence of prepared sites as well as the degree of need which exists for increased provision of houses, especially in industrial centres. Approval will generally be given to small numbers at a time and substantial reductions on past prices will be required.

Local authorities should take an early opportunity of reviewing the staffs provided for housing purposes.

As regards finance it may be found in some cases that loans already raised, or arranged, are sufficient or are in excess of the amount required. In such cases no further loans should be accepted and if Local Bonds are being issued the issue should cease forthwith. If the loans raised specifically for housing are in excess of the amount required for existing commitments and the local authority is unable or does not require to use the excess for other authorized loans, the Minister would be glad to receive a statement of the position as soon as possible.

Subsidy to Private Builders.

The Government have decided to limit the grant of subsidies to private builders, under the Housing (Additional Powers) Acts, 1919 and 1921, to houses actually commenced before July 1 under a certificate given by a local authority, or on the promise of such a certificate, and completed not later than June 23, 1922.

In order to meet cases of hardship, however, local authorities may issue certificates where commitments have been entered into on or before July 14, 1921, the date of the Minister's statement in Parliament on Housing Policy. In such cases subsidy will be paid for houses in respect of which the local authority certify that actual construction was begun on or before August 25, 1921, and which are completed within the prescribed time and otherwise comply with the conditions of the subsidy scheme.

It will be for the local authority to satisfy themselves that a definite commitment existed before July 15. Generally any expenditure incurred in anticipation of subsidy, such as the purchase of land, or any contractual obligation involving financial liability, will be regarded as a commitment.

In view of the limitation of time local authorities will realize that it is essential to ensure that all cases submitted to them are dealt with immediately.

In any case of doubt the question should be referred promptly to the Ministry with a full statement of facts, addressed to the Secretary, Ministry of Health, Whitehall.

Where a certificate is issued under this discretionary power a typed slip must be attached in the following terms and signed by the officer authorized to issue the certificate :—

"This certificate is issued in pursuance of the discretion conferred upon the local authority to grant a certificate in cases where commitments had been entered into before July 15, 1921.

"The certificate is subject to the conditions—

(1) that no grant will be payable in respect of any house to which it applies unless construction is begun on or before August 25, 1921.

(2) that houses to qualify for grant must be completed fit for occupation not later than June 23, 1922."

A similar slip should be attached to the copies of the certificates sent to the Housing Commissioner and retained by the Council.

Paragraph (*b*) of the "conditions" on the printed certificate should be deleted.

A scheme has been made by the Minister and approved by His Majesty's Treasury rendering houses commenced before July 1, 1921, eligible for grant and providing for the exercise of the discretionary power described above. The conditions as to planning and construction already prescribed remain as before.

Insanitary Areas, etc.

A further communication will be addressed to the local authority at a later date regarding the Minister's proposals for the administration of the grant in respect of insanitary areas.

Wallpaper and Poste Exhibition

As, owing to unforeseen circumstar there has been some delay in the decoration of the Sheepshanks Galle of the Victoria and Albert Museum has been decided to arrange a pu temporary exhibition of wall-papers posters, which is now open to the pu in Rooms 95–99. Of special note am the wall-papers is a French set, of Empire Period, representing a continu picture of a hunting scene. There also examples of Chinese papers, from these one passes to examples il trating the history of British papers fi the early sixteenth century to the desi of William Morris, Walter Crane, other modern artists.

The posters, which represent a selec only from the large collection now in Museum, are arranged to show the w of different countries—Great Britain, United States, France, Germany, The British section contains a very e example of a poster designed by Wa Crane in 1888; work by the "Begg staff Brothers" and Aubrey Beardsl and groups of work by living artists s as Frank Brangwyn and Spencer Br

British and French war posters well represented, among the latter be famous works by Steinlen, Fai Poulbot, Willette, Roll, and others; w special interest attaches to chosen exa ples of German posters, which hold th own by sheer force and efficiency.

A. and S.A.P.U. : Metropolitan Branch

The annual general meeting of Metropolitan Branch of the Architec and Surveyors' Assistants' Professio Union has been held at Caxton H Westminster, under the chairmanship Mr. Dalton, secretary of the Design Cl After the minutes of the last gene meeting had been read and confirm the hon. secretary's report on the work the retiring committee during the p year, and a financial statement a balance sheet by the hon. treasurer, w read and adopted.

Votes of thanks to the hon. secreta Mr. Chas. Cathrow, the hon. treasur Mr. H. T. Howard, and the two audito Messrs. C. Battenbury and C. G. Wrig and the retiring committee were carr with acclamation.

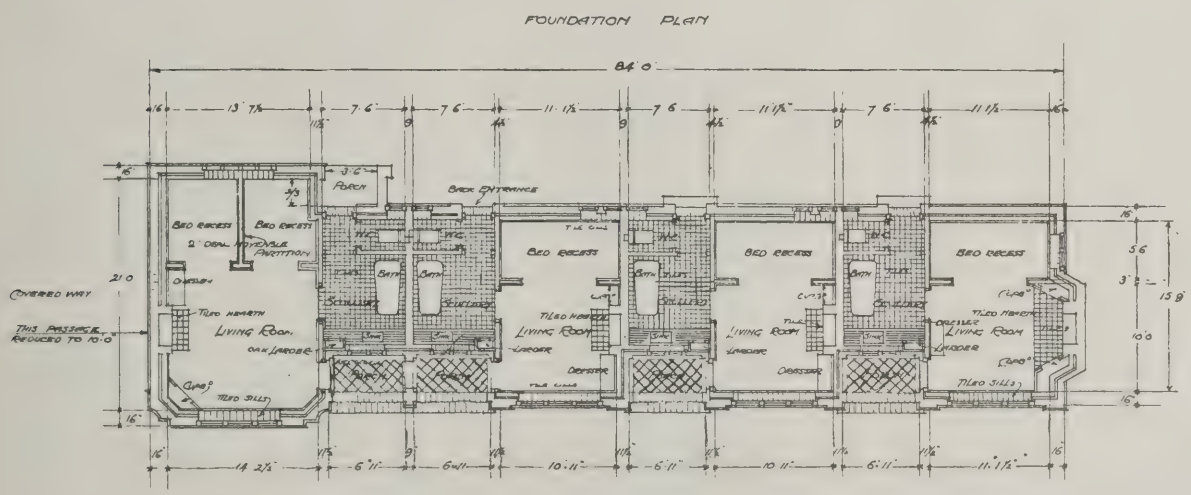
The following members were elected form the new committee : Messrs. H. Baker, T. R. Bilbow, J. W. Denningt C. R. Cathrow, R. B. Craze, J. H. Davi W. S. Dalton, J. A. Gould, H. T. Howa W. H. Jackson, J. R. Jelly, H. J. Ma A. D. Reid, J. E. Rhind, F. J. Willian and L. E. Whible.

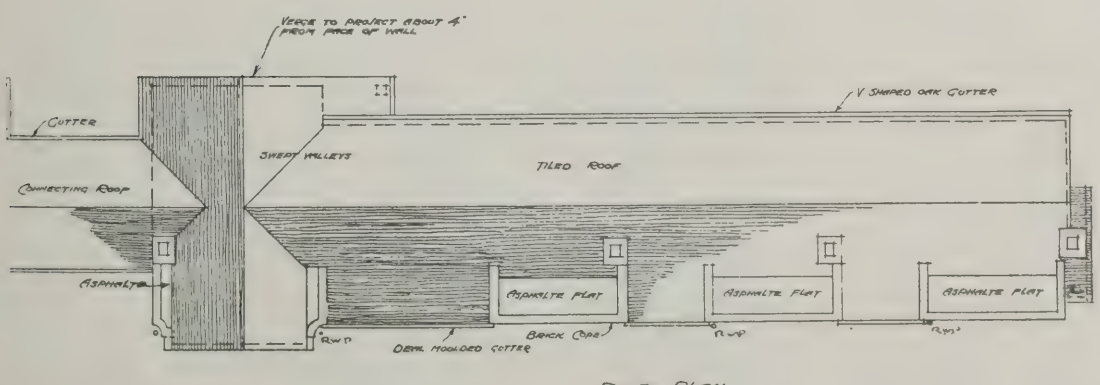
A spirited discussion took place on t subject of making the Union mo widely known among the techni workers of the building trades, seve members speaking strongly in favour changing the name of the Union so as include the technical men in contracto offices more conspicuously. In reply was pointed out that the Central Exec tive Committee had approached t branch committees with regard to th but the verdict had been in favour keeping the old name, partly because

Modern Domestic Architecture. 29.—Group of Cottages at the Whiteley Village, Burhill, Walton, Surrey

Sir Aston Webb, P.R.A., Architect







Some account of the Whiteley Village has already been given in this Journal, together with illustrations of the work of the different architects who have taken part in its design. Above is shown one of the charming groups of cottages designed by Sir Aston Webb.

he unwieldy nature of the suggested hanges, and partly on sentimental rounds.

Mr. Jackson suggested that the Union hould take steps to make entrance into he Union confer some diploma of effi- iency, and the meeting voted unani- iously that the new committee be nstructed to formulate some concrete cheme to lay before the Central Execu- ive Committee.

Mr. Pickford, the director of the em- loyment bureau, appealed to all mem- ers to inform him of any vacancies of hich they become aware in their offices, s the bureau was one of the activities of he Union which was of great assistance o the members. Every care was taken o send only the right men after an ppointment.

A hearty vote of thanks to the recently etired hon. general secretary, Mr. Chas. IcLachlan, A.R.I.B.A., proposed by Ir. Jackson, and seconded by Mr. 3raddock, was received with great ap- lause, and carried with acclamation, everal members paying sincere tribute o Mr. McLachlan's wholehearted service o the Union since its inception. A vote f thanks to the chairman concluded the neeting.

Architectural Appointments Wanted

The Ministry of Labour Appointments Department, of 3–4 Clements Inn, Strand, W.C. 2, notify us that the following architectural assistants and others require appointments :—

Architectural Assistant. Age 26. Single. 4 years' experience with architect and estate agent. 2 years as architect assistant. Conversant with dilapidations, specifications, etc. 2329.

Architect and Surveyor's Assistant. Age 36. War service 3½ years. 6 years articled, and 12 years' experience as assistant architect and surveyor. Good municipal experience. 5750/21.

Architectural Assistant. Age 27. War service 4 years. All-round experience in architect's department, including domestic, factory, and public works, road-making, etc. 5235/21.

Junior Assistant or Draughtsman. Age 24. War service 3½ years. Pupil 2 years. Draughtsman 18 months. Ordnance map. 5268/21.

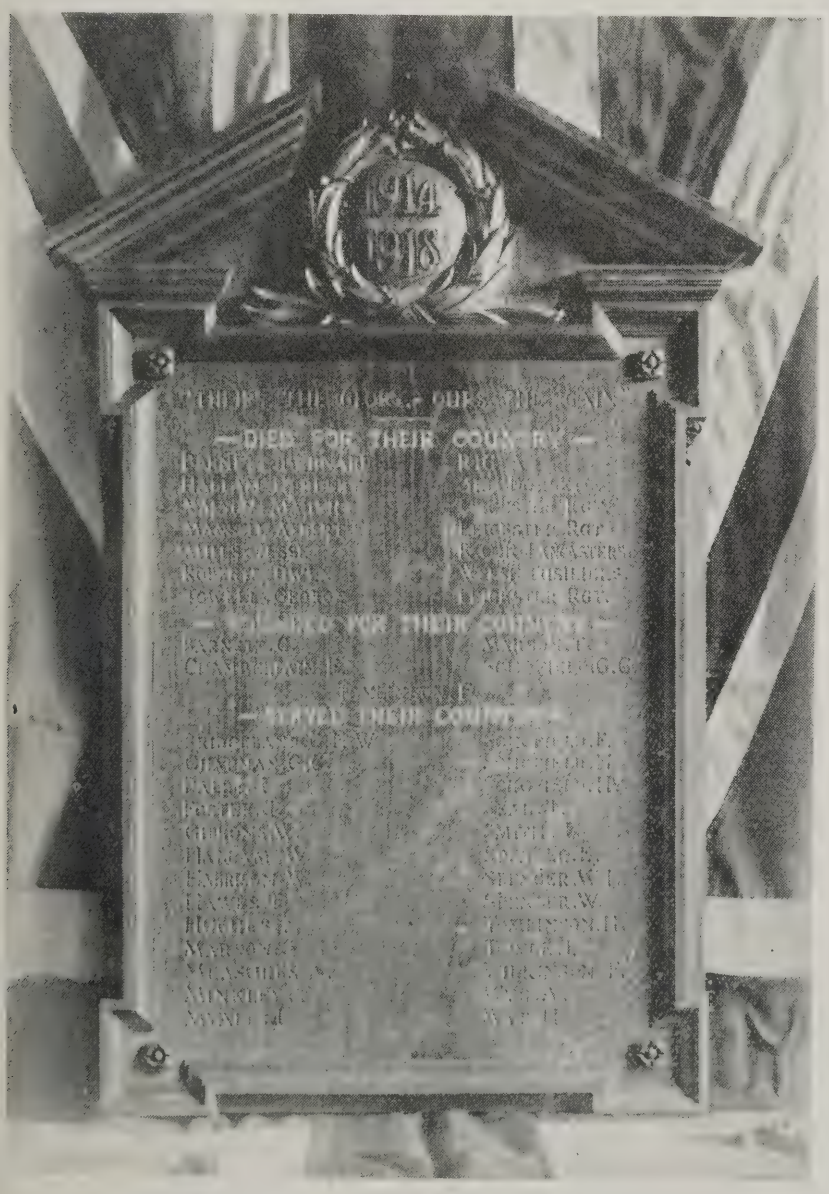
Architect or anything in Building Trade. Lieut. Age 35. War service 4 years. A.R.I.B.A. 2 years structural steel engineer. 2 years clerk of works. 2 years office manager. 2 years draughtsman. 1527.

Surveyor, Valuer, and Manager of Property. Age 50. Married. Captain. 33 years' experience in dealing with property, including 20 years practising on own account as house and estate agent, surveyor, and valuer. 358/21.

As General Assistant and Valuer in Surveyor's, Auctioneer's, and Estate Agent's Office. Age 23. Single. 2nd Lieut. Passed Intermediate Surveyors (Valuation Sub-Section). 3 years' practical experience. 8619.

Architectural. 2nd Lieut. Age 47. Married. War service 8 months. Educated Merchant Taylors School. F.R.I.B.A. 30 years' architectural experience, with special knowledge of tropical requirements. 40064.

Draughtsman (Naval or Aero). Age 28. Single. Lieut. War service 4 years. 9 years' experience in naval architect's. 2 years' aeroplane design and construction experience. 4585/21.



WAR MEMORIAL TABLET, BURTON-ON-THE-WOLDS.
ALBERT E. KING & CO., ARCHITECTS

New Super Cinema at Brighton

The new Regent Cinema erected at Brighton to the designs of Mr. Robert Atkinson, F.R.I.B.A., has been formally opened. The cinema theatre itself will accommodate over 3,000 persons, the Winter Garden, when completed, about 1,200, whilst there is room for several hundreds more in the restaurant, ship café, and foyer lounge. The building can, in fact, house over 5,000 persons at one time.

The panels in the box foyer are by Mr. Walter Bayes, Principal of the Westminster School of Art, and Mr. Walpole Champneys. The proscenium is decorated by Mr. Lawrence Preston, A.R.C.A., painting master at the Brighton School of Art. The restaurant is decorated in the manner of the Italian Renaissance. The ceiling is richly coloured and gilded, and the walls hung with saffron-coloured hangings.

The ship café is a free rendering of the wardroom of an eighteenth-century three-decker. The white marble candelabra in the entrance hall are from the famous Hope collection.

The balcony, constructed of steel, has a clear span of 110 ft., and a projection of over 50 ft.

An organ has been installed, at a cost of £8,000, and special stage effects are to be produced by a new and elaborate system of multi-coloured lights, worked from the side galleries.

A War Memorial Tablet

The war memorial tablet illustrated on this page has been erected in the church at Burton-on-the-Wolds, near Loughborough. The tablet, which measures 3 ft. by 2 ft. over all, is constructed of oak, over 200 years old, taken from an old windmill near Leicester, and the mouldings and carving are hand-cut. The oak is slightly oiled, the headings are coloured light blue, and the other lettering gilded. The work has been executed by Messrs. Whiteley and Moore, of Leicester, from the designs of Messrs. Albert E. King and Company, of Loughborough and London, architects.

Glasgow Ideal Homes Exhibition

Of the many trade exhibitions which the Glasgow Corporation have promoted within recent years and held in their capacious hall at Kelvingrove, none has proved more successful than that dealing with housing. The clamant demand for dwellings following upon the long period of building inactivity during the war is being met but slowly, though the rate is increasing year by year. Greater interest is accordingly being taken by the citizens generally in the progress made in housing.

The demand is for the very latest in everything that pertains to the household. The Ideal Homes Exhibition promoted by the Glasgow Corporation gives the members of the public an opportunity of examining the most up-to-date improvement in the building and equipment of a dwelling. Arrangements are well advanced for the forthcoming exhibition, which will open in the Kelvin Hall, Kelvingrove, on September 19 next until October 8. No effort is being spared to make the show as attractive as possible.

The exhibition will be divided into different classifications, including building materials, furnishings, lighting, heating, labour-saving, and cleaning appliances, sanitary appliances, decoration, recreation, foodstuffs (prepared and preserved), and appliances for home nursing.

The building material section will comprise reinforced concrete, brickwork, concrete slabs and blocks, asphalt, asbestos, slabs, tiles, marbles, and mosaics, casements, cements, chimney-pots, cowls, etc., roofing materials, doors, door fittings and window fittings, floorings of all kinds, glazing of all kinds, timbers of all kinds, mouldings, chimney-pieces (metal and wooden), and stone. A first-class military band will provide a musical programme each afternoon and evening.

Fire-resisting Floors

A remarkable instance of the fire-resisting qualities of Marbolith flooring has come to our notice. Shortly before 9 a.m. on July 8, the premises of Messrs. Kolynos Inc., of 51–52 Aldersgate Street, which occupy three floors, were discovered to be on fire. Messrs. Kolynos are the manufacturers of a dental cream, and store a large quantity of chemicals in the basement. The fire brigade was on the spot with its usual promptitude, but the whole building was threatened with destruction, as in a brief space of time, through the inflammable nature of the materials, the fire had made extraordinarily rapid progress.

The ground-floor rooms of the building were all laid with Marbolith flooring, and though the whole of the basement was burnt out, and the joists and floor boards of the ground floor, on which the Marbolith was superimposed, were likewise completely destroyed, the fire was unable to make any impression on the Marbolith; for, despite the intense heat to which it was submitted, the Marbolith was not even cracked, and the further progress of the fire was completely arrested. The flooring only gave way when the supporting timbers were burnt out, and through the weight of the machinery.

The Wilfley Company, who manufacture Marbolith, will be glad to show a sample of the floor with the charred wood fragments still adhering to the under surface of the Marbolith, to architects and others who may care to pay a visit to their offices at Salisbury House, London Wall, E.C.2.

One feature of importance is that when Marbolith floors are laid, the owner of the building ought to be able to obtain a sensible reduction in insurance rates.

A point of interest at the Kolynos fire is that though the whole of the usual staff were at work on the ground floor, they were not aware of a fire being in progress in the basement until warned by the smoke coming up through the stairway at the end of the building.

We are asked to state that Kolynos Incorporated are now producing their preparation in a temporary factory, and are in a position to execute orders as though there had been no fire.

The Housing Subsidy

The National Federation of House Builders draws attention to the statement made by the Prime Minister in the House of Commons on July 21, that the curtailing of the Government programme to 176,000 houses already contracted for and the withdrawal of the subsidy to the private builder will not cause one house the less to be built in England during the next eighteen months, nor in Scotland during the next two years. "This statement," the Federation say, "shows a lamentable lack of information on the part of the Prime Minister. The house builders who built under the subsidy have schemes in hand, land and materials purchased, and plans prepared for many thousands of houses which would have been erected during the next twelve months, but which cannot now be proceeded with owing to the withdrawal of the subsidy.

"The subsidy to private builders was inaugurated in December 1919. It was found to be altogether inadequate in amount to encourage building, and was increased in April 1920 after four months' delay. The scheme was designed to end in December 1920, and builders curtailed their building on that account during last autumn. An extension was promised by the Government as the economy of building by this means was recognized, but the Bill to extend the period of the subsidy was defeated in the House of Lords in December 1920. It was reintroduced, and finally passed on June 30 last. During that period of waiting housing schemes were suspended all over the country. On July 14, when the Act was two weeks old, the Government announced that the subsidy was to be discontinued.

"Notwithstanding all these drawbacks, houses have been erected under the subsidy scheme at a greater rate than by all other State-aided methods put together. The houses built under the subsidy cost the Government about £230 each, and houses built under other schemes involve a loss to the country of more than £1,000 each. The amount voted by the House of Commons for the purpose of the subsidy to private builders was £15,000,000; of this sum about £5,000,000 has been or will be paid, and the balance, if the system had been continued, would have provided upwards of 40,000 houses during the next twelve months."

Latest List of New Inventions

Latest Patent Applications.

18961.—Ekert, F. — Building hol walls. July 13.

18681.—Meldrum, F.—Building c struction. July 11.

19125.—Norris, N.—Cavity brick. J 15.

18812.—Stredwick, E. N.—Method constructing buildings in c crete, etc. July 12.

Specifications Published.

165887.—Johnstone, J.—Methods of plying concrete to the constr tion of houses and other bu ings.

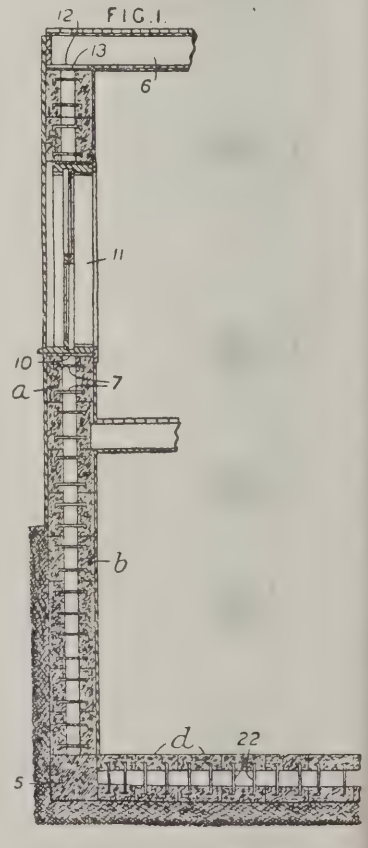
185898.—Godward, C.—Wall or the li and means for constructing forming same of concrete, bri terra-cotta, stone, or ot material.

165962.—Concrete Dwellings, Ltd., a Brown, H. Edon.—Moulds casting hollow concrete and l structures such as walls.

165972.—King, P. S.—Concrete build blocks.

Abstract Published.

163892.—Walls; floors.—Patterson, D 7 Patterson Block, Oma Nebraska, U.S.A.—A dou wall having an air space c tinuous from the footing 5



the upper floor joist is provid with means for sealing the space at door and wind openings and at the upper fl joist. The two parts *a b* of t wall are preferably formed blocks maintained in spac

relation by tie-bars 7, and insulating-material such as hair cloth 10 seals the air space at the door, etc., frames 11, while a cap 12 and hair cloth 13 seals the air space at the upper floor joist 6. A floor is also described formed of the spaced blocks *d* having rods 22, the floor abutting on the footing 5.

e above particulars are specially prepared by rs. Rayner & Co. Registered Patent Agents, of ancery Lane, London, from whom readers of this nal may obtain all information free relating to nts, trade-marks, and designs. Messrs. Rayner & Co. obtain printed copies of the published specifications forward on post free for the sum of 1/- each.

National Housing and own-planning Council.

n enormous legislative step in advance been made by the passing of Section 1 he Housing and Town-planning Acts 919 for England and Wales and Scotd, says the N.H. and T.P.C. The rensibility for surveying the needs of ir areas, and preparing schemes for the rovement of housing conditions—h by the construction of new houses the destruction or improvement of houses—now becomes an imperative utory duty which must be fulfilled by al Authorities throughout the United gdom. It is true that under the nt decision of the Government the cial financial assistance, and limitation he local burden to the penny rate, will se with the building of, say, the ,000 houses for which contracts have n signed in the three countries; but the utory duty remains, and although in future the Government may envour to place a greater burden upon Local Authority, any endeavour ch may be made at the centre to dism a large measure of financial rensibility for the carrying into effect of eady policy of housing improvement st fail if persisted in against the wing desire of the country that the istry of Health shall justify its name deserve to have written across its tals *Salus populi suprema lex.*

Vith regard to the various criticisms ch are now being levelled against the ernment, it must in fairness be nted out that their contribution to sing greatly exceeds that of any other ntry in the world.

n France and America house-building the poorer members of the community t a standstill. In Belgium and Italy ertain measure of activity is being wn by the State and Local Authorities ng in conjunction, but the actual ievements are far below those of this ntry. Throughout the whole of rope and America the cost of building so high that private enterprise has ed to operate, and the pressure of and for remedial action is as great as, reater than, it is here.

he weekly record issued by the ncil contains an interesting summary ousing progress during the last three rs, and states that, although the nber of houses included in the present gramme either as built or building, or to built, falls far short of national needs, qualitative value of the new houses is ond question. Between 85 per cent. 90 per cent. have three bedrooms. vards of 5 per cent. have four bedrooms, whilst less than 5 per cent. possess two bedrooms. In Urban Housing Schemes the number of new houses is limited to twelve per acre, which means that each house has allotted to it an average of 400 square yards. For purposes of comparison it may be noted that before the war the number of houses in working-class areas developed by private enterprise varied from 25 to 40 per acre. As a general rule quite 70 ft. is provided in the case of the new houses, whereas a width of from 36 to 40 ft. characterized the speculative builder's street of pre-war time. The old narrow-fronted house with rear rooms, robbed of light by ugly extensions, has disappeared, and the broad-fronted cottage with its greater light and more economical planning holds the field completely.

Three factors of vital importance will ultimately secure the complete success of a great housing policy. The first of these rests in the reality of housing needs. The second in the clear determination of members of Local Authorities to secure that their districts shall be swept clean of bad housing conditions. The third factor is that men and women of real insight recognize that the foundations of national life can only be well and truly laid in a proper home life.

Book Notice

Shades and Shadows.

This book has been prepared with a view to assisting architectural students, who in many colleges receive their early training under engineering teachers. The author hopes that by assuming the point of view of their engineering training at the beginning of the book, such students may be led by a study of Shades and Shadows toward an appreciation of the artistic architectural point of view, so seldom developed in a strictly engineering course.

This small volume consists of some 135 pages, over 70 of which contain full-page illustrations. The draughtsmanship throughout is good, and the drawings—although far too small for convenient study—are clearly reproduced. Too much valuable space is given to unworked problems and questions, over 30 pages being occupied with these and with illustrations connected therewith.

The system of notation adopted reduces the amount of printed matter. This saving in space, however, does not quite compensate for lack of clarity in the descriptive matter relating to the various examples. The descriptions in themselves are meagre, and necessitate a fair knowledge of the subject on the part of the student to follow them through.

The two chapters into which the book is divided deal respectively with Elementary Principles of Descriptive Geometry, and with the Principles of Shades and Shadows, the former being specially compiled to help in the study of the latter.

In the first chapter the author need not have taken pains to describe what is meant by a solid. Here a solid is described as a "magnitude that has length, breadth, and thickness," the cylinder, cone, and sphere being quoted as examples. None of these, however, are three-dimension solids. Some of the space given to unworked examples might, with great advantage, have been occupied by a few good examples of interpenetrations of solids; only one such example is given.

In the second chapter there are several good reproductions of drawings showing the shadows washed in. The latter part of this chapter deals with wash-rendering, and contains information which is of much value to students.

In a text book dealing with a technical subject such as this, there are several points of detail which one could criticize, but no one could gainsay the opinion that this little volume will be exceedingly useful to the student of architecture who wishes to pursue the study of the projection of Shades and Shadows.

J. STIRLING BOYD.

Shades and Shadows. By David C. Lange, M.S. Instructor in Architecture in the Washington State College. Price 15s. net. Chapman and Hall, 11 Henrietta Street, Covent Garden, London, W.C. 2.

Publications Received

A Mediæval City in Greece: Its Churches and Ruins. By the Rev. J. Arnott Hamilton, B.D., Hon. Secretary, Scottish Ecclesiastical Society (Glasgow Branch), former student of the British School at Athens. Price 3s. net. W. Jolly and Sons, Ltd., Albany Press, Aberdeen.

The Welsh Housing and Development Year Book, 1921. Edited by D. Lleufer Thomas, chairman of the Welsh Housing and Development Association. Price 1s. 6d. net. The Welsh Housing and Development Association, 38 Charles Street, Cardiff.

Pamphlets dealing with various phases of the housing problem. Published by the National Housing Association, 105 East 22D Street, New York City.

A Collection of Antique Vases, Tripods, Candelabra, etc., from various Museums and Collections, after Engravings by Henry Moses and others. With over 120 reproductions selected by John Tiranti. Price 10s. 6d. net. Portfolio of loose plates 9s. 6d. net. John Tiranti and Company, Maple Street, Tottenham Court Road, London, W. 1.

The Electric Lighting of Shop Windows. A simple guide for shopkeepers and window-dressers. By G. K. Fletcher. Price 5s. net. Benn Brothers Ltd., 8 Bouverie Street, London, E.C.4.

Coming Events

July 30—*August* 13.

Summer School of Civics at Guildford. The courses of study offered are of much interest to health workers and other social workers, and to teachers. In addition to the courses of lectures, the programme offers a most interesting series of less formal methods of study. Among these are exhibitions of modern and classical art, regional survey exhibitions, a loan exhibition of Guildford old and new, and an exhibition of books on civics. There are also dramatic and musical entertainments, and a series of public evening lectures.

September 19—*October* 8.

Ideal Homes Exhibition at Kelvingrove, Glasgow.

The Week's News

New Boulevard for Torquay.

Torquay T.C. have decided to purchase 111 acres of land for £5,000 to construct a drive which will cost £10,000.

Radley War Memorial.

The foundation stone has been laid of the memorial gateway at Radley College. The design is by Sir Thomas Jackson.

Factory for Quebec.

A factory for working up asbestos is to be erected in Quebec at a cost of nearly £500,000.

Indian River to be Bridged.

A reinforced concrete bridge, comprising four spans of 65 ft. each, is to be erected over the Gumtri River in the Shahjahanpur district, Bombay.

Monument to Lister.

A monument to Lord Lister, the founder of antiseptic surgery, is to be erected by the Royal Society in Portland Place, W., near to the house in which he lived.

Liverpool Housing Progress.

At Liverpool 1,056 houses have been completed and are now tenanted, and 2,706 houses are in course of erection. At Knotty Ash 488 wooden bungalows are tenanted.

Beckenham War Memorial.

The Beckenham War Memorial, which has cost £2,500, and stands 23 ft. high, at the junction of the town's principal roads, has been unveiled. There are 711 names inscribed on the memorial.

Naval War Memorial.

Portsmouth Town Council has been asked by the War Graves Commission for a site on Southsea beach upon which to erect a war memorial to the officers and men of the Navy.

Municipal Houses for Sale.

In order to relieve local needs, and with the consent of the Ministry of Health, the Newport (Mon.) Corporation are offering for sale at £650 all houses built under their housing scheme at a cost of £1,300. Smaller houses are offered at £490.

Rebuilding of a West Ealing Church.

Towards the cost of rebuilding the Church of St. John's, West Ealing, which was destroyed by fire last November, between £27,000 and £28,000 has been either paid or promised, including the sum of £16,000 from insurance.

City of London Housing Scheme.

At the garden city being erected at Ilford for the City of London Corporation, sixty-two houses have been completed, 158 are within a few weeks of completion, and the concrete foundations have been laid for 414 others.

Higher Buildings for London.

Mr. Delissa Joseph, Joint Hon. Secretary of the London Building Act Committee of the R.I.B.A., in a letter to "The Observer," says: "In order to avoid any misunderstanding I shall feel obliged if you will allow me to point out that the scheme for 'Higher Buildings for London,' which has been prepared by the Building Act Committee of the Royal Institute of British Architects, has not yet been submitted to the Council of the Institute, and that therefore the Council have not yet had an opportunity of forming an opinion thereon."

Statue to Submarine Dead.

A memorial to submarine officers and men who fell in the war is to be erected by the Submarine Memorial Committee on the granite pylon on Victoria Embankment, opposite the entrance to the Temple Gardens.

Proposed Removal of Tolbooth Steeple.

Glasgow Corporation propose to remove Tolbooth Steeple owing to the fact that it interferes with the traffic. The steeple is a square tower 113 ft. high, and the only remaining part of Tolbooth Prison, built in 1627.

Colchester Castle.

Viscount Cowdray, who recently gave the Corporation of Colchester £10,000 in order that the castle built by William the Conqueror's steward might become the property of the town, has added another £10,000 for the purchase of adjoining properties.

The Gates of Devonshire House.

The ornamental gates to Devonshire House are to be taken down and erected as entrance gates to the new broad walk now being constructed through the Green Park, London. The new walk will extend from the Victoria Memorial to Piccadilly.

Threadneedle Street Widening.

A portion of Threadneedle Street, between Old Broad Street and Bishopsgate, London, is to be widened to a minimum of 36 ft., with a carriage-way of 24 ft., for a distance of about 420 ft. The cost will be £55,000.

New Arterial Road for London.

A new arterial road for north London is being constructed by the Middlesex County Council in conjunction with the Ministry of Transport. The main object of the road is to give the eastern counties a route round the north of London. The total length in Middlesex will be 12½ miles, of which 7½ will be entirely new.

Leicester Architects' Visits.

Some of the members of the Leicester and Leicestershire Society of Architects, numbering about forty, have paid a visit of inspection to Messrs. Thomas Morley and Sons' factory in Great Central Street, and the North Bridge Estate city housing scheme. This is the fifth evening excursion the society has made during this summer.

Change of Address.

With a view to centralizing the manufacturing side of their business The Davis Gas Stove Company Ltd. decided last December to transfer their Camberwell works to the Diamond Foundry, Luton. As a result it has now been arranged that from August 8th the offices at Camberwell shall also be closed, and for the future the address of the registered office of the Company will be No. 60 Oxford Street, London, W.1. Communications should be addressed to the Secretarial Department.

Delaware River Bridge Report.

H.M. Consul-General at Philadel has forwarded a copy of the engin report on the proposed bridge across Delaware River, Philadelphia. The posal awaits the sanction of the Authorities before tenders are invite the construction of the bridge, w work may possibly provide an ope for materials from the United Kingd The report is available for inspec by United Kingdom firms on applica at Room 50, Department of Over Trade, 35 Old Queen Street, Lon S.W. 1.

A New Lely at the National Gallery.

At the National Gallery, Trafa Square, Sir Peter Lely has been re sented hitherto only by a small pic lent by the National Portrait Gall Now the fine portrait, painted about 1 of Van Helmont, the Flemish alchen metaphysician, and teacher of mutes, is on view in Room XXV. On canvas is recorded the fact that Helmont embalmed the body of A Lady Conway, for her husband to se his return from Ireland in 1679. picture was bought out of the Lewis F for the National Gallery at the recent of the Ragley pictures at Christie's.

Extension of R.I.B.A. Premises.

At the Council meeting of the R.I.B held on July 18, the purchase of the petual lease of No. 10 Conduit Street reported by the president, who ca the attention of the Council to the v able services rendered in this matter Mr. Sydney Perks, chairman of Finance and House Committee. It due to the energy, foresight, and busi capacity of Mr. Perks that this m needed extension was obtained at s a moderate price. The Council recor a hearty vote of thanks to Mr. Perks his services to the Royal Institute in matter.

Eastbourne College Memorial Door.

The entrance door to the new buildi at Eastbourne College has been erecte a private war memorial to the memor Captain G. H. St. P. Bunbury, I.A., bears an inscription to that effect. work was designed by and carried under the supervision of Mr. Geoffre Wilson, A.R.I.B.A. (himself an old E bournian), and one of the partners in firm of Messrs. Bourchier, Tatchell, Galsworthy. The contractors were Me Mark Martin and Sons, of Eastbou builders. The stone-carving was execu by Mr. George Alexander, the arms ab the door being those of the Bunb family, with the School crests on ei side, and the School arms and regime crest of the 15th Sikhs below, to wh regiment Captain Bunbury belonged w he was killed in action. The oak carving in the spandrels is symbolica the Sussex weald. The doors are English oak, and the wrought-iron hin and furniture were made by Mr. Bainbridge Reynolds.

The National Federation Meeting at Sheffield

THE eighty-seventh half-yearly meeting of the National Federation of Building Trades Employers was held in Sheffield last week, the proceedings extending over three days. The executive committee met in private on Tuesday, and were entertained to lunch by the Sheffield Association, while later in the evening they, along with their ladies, were the guests of the President and members of the Executive Council of the Sheffield, Rotherham, and District Building Trades Employers Association. The dinner, which was held at the Royal Victoria Station Hotel, Sheffield, was presided over by Mr. E. H. Banks (President of the Sheffield Association), and the guests included Alderman W. F. Wardley (Lord Mayor of Sheffield).

The toast of "The National Federation" was proposed by the chairman, and responded to by Mr. A. J. Forsdike (Sheffield), the President.

Councillor S. Easten, O.B.E., J.P. (Newcastle-upon-Tyne), proposed the toast of "The City and Trade of Sheffield," and in the course of his remarks defended the action of the Employers Federation in taking up the Government scheme to take ex-Service men into the industry. He said that they had not adopted the scheme with any idea of interfering with any trade's union regulations, but simply because they considered it unfair that any craftsmen in the industry should hold a monopoly position, and so use it that they were strangling the industry as a whole.

The General Meeting.

The general meeting was held on Wednesday at the Royal Victoria Hotel. The President, Mr. A. J. Forsdike, took the chair, and there was a large attendance.

Official Welcome.

The Lord Mayor of Sheffield, Alderman W. F. Wardley, J.P., opened the meeting by extending to the members a hearty welcome in the name of the Corporation.

The President, in the name of the delegates, heartily thanked the Lord Mayor for his presence among them.

The Louth Disaster.

Mr. H. Thompson (Louth), in proposing a vote of thanks to the Federation for the assistance they had given to the builders of Louth and district who suffered in connection with the cloud-burst there, said that the members of the Midland Federation would never forget the way in which the National Federation came to their help. The response had been most wonderful, something like £5,000 having been collected.

Case of the ex-Service Men.

The meeting next proceeded to discuss the interim report of the Council.

Mr. A. G. White (the Secretary) reported that at the meeting the previous day of the Executive Council the following resolution was passed *re* the admission of ex-Service men into the trade: "That this meeting regrets that circumstances have prevented the success of the ex-Service men's scheme, but determines to proceed forthwith to put into operation the arrangements made, and, where any section of employers in the building trade are not working in accordance with the decision of the National Federation, inquiry be instituted, and report made to the administrative committee to determine what action shall be taken."

Mr. E. J. Brown (London) said he regarded that as the most important matter that they had to consider. London was bitterly disappointed that builders in other parts of the country had, practically speaking, done nothing to fulfil the pledges which they gave at the ballot which was taken on the subject. They were told, and they realized, that there were very great difficulties in the way of taking those men in because of the cut that had been made in the housing scheme by the Government, and also owing to the effects of the coal strike. Now he appealed to the meeting to brush all those difficulties aside. If only every other member of the Federation took on one man under the ex-Service men's scheme they would be home with it, and then the Government or the country, or, indeed, anyone, would not be able to say that they had not fulfilled their pledges. If a member had only four, or perhaps five, bricklayers or plasterers working for him, they would not force even one man down his throat at present. The result had been that they had allotted about 140 men in London. They could allot many more the moment the National Federation said: "We are behind you in London, and if you are attacked, the National Federation will fulfil its pledge and come to your support even by way of asking for a national lock-out." The moment they put the ex-Service men on to learn plastering the trouble was going to begin. The bricklayers had taken it very well indeed, and were now teaching the men. He felt confident that if it was known that the National Federation had made up its mind that the scheme was to go through, the plasterers themselves would act in the same way sooner or later as the bricklayers had.

After a good deal of discussion, Mr. Brown said he would like to ask if the Federation was prepared to pledge itself to support any section, whether it was London or anywhere else, absolutely up to the hilt should trouble rise (Loud cries of "Yes"). That satisfied him; London would go ahead and perhaps the fat would be in the fire before they could turn round.

The resolution was carried unanimously.

Imported Joinery.

After considerable discussion the following resolution, which was carried at the meeting of the Executive Council, was unanimously agreed to: "That this meeting strongly condemns the attitude taken up by the Trades Union in refusing to permit its members to fix imported or other joinery, and pledges itself to support the National Federation in any action that may be deemed necessary even to the extent of taking a ballot respecting a lock-out in supporting the principle that the builders in this country have the right to purchase their goods and carry on their business without any dictation from the operatives, but this meeting has no desire to foster the interests of any firms who are manufacturing goods prepared under unfair conditions. Further the Regional Federations be asked to send immediately to the Administrative Committee full particulars of cases in their area where imported or other joinery is not being fixed."

Honours for Federation Members.

The President said he was sure that all the members congratulated Sir Frederick Rice and Sir Harold Williams upon the honour which the King had been graciously pleased to confer upon them. (Hear, hear.) They looked upon the honours as being well deserved, and to Sir Frederick Rice, who was present, they offered their hearty congratulations.

Cash Discounts.

The President formally proposed the adoption of the following resolution which was carried at the meeting of the Executive Council: "That this Executive Council considers that the time has arrived when all accounts for goods and material supplied by merchants or manufacturers to builders should again carry the usual pre-war 2½ per cent. discount for cash where accounts are paid monthly, and this should come into general operation at the latest by September 30 next. And the Executive Council authorizes the administrative committee to take any necessary steps by way of conferences or otherwise to bring this about. Instructions to members to be given through the new journal as well as the regional federations."

Mr. W. Moffat (Birmingham) seconded the motion, and it was carried.

Government Departments and Results of Tenders.

On the motion of the President the following resolution which was passed by the Executive Council was carried unanimously: "That Government Departments should in future supply the contractors who have tendered for work a list showing the result."

After various other matters of trade interest had been discussed a vote of thanks to the President for his conduct in the chair terminated the proceedings.

Presentation to the President.

In the afternoon, at the invitation of the Lord Mayor and the Lady Mayoress, the visitors paid a visit to the Town Hall, where they took afternoon tea. In the evening a reception took place at the Cutlers' Hall by the invitation of the Council of the Yorkshire Federation. The guests were received by Mr. A. J. Forsdike (the National President) and Ald. W. H. Birch, J.P. (the Yorkshire President).

During the evening opportunity was taken to present Mr. and Mrs. Forsdike with a handsome sterling silver epergne, on behalf of the members of the Sheffield, Rotherham, and District Building Trades Employers Association, in recognition of Mr. Forsdike's invaluable services to the building trade and in commemoration of his year of office as National President. Mr. Forsdike was also presented with his portrait in colours on behalf of the Yorkshire Federation.

The concluding item on the programme took the shape of a most enjoyable motor excursion into Derbyshire on Thursday; luncheon being served at the Grand Hotel, Baslow, en route.

R.I.B.A. Examinations

The following resolutions of the Board of Architectural Education have been approved by the Council of the R.I.B.A. :

Intermediate Examination Testimonies of Study.—Resolved to substitute the following " testimonies of study " to be submitted by candidates for the Intermediate Examination, in lieu of the present testimonies :—

1 and 2. Two sheets showing the application of one or more of the orders of Architecture to a building. A general drawing of the building to be given on one sheet, with details on the second.

3, 4, and 5. One sheet of details of Classic ornament from the round or one sheet of Mediæval ornament—freehand drawing from the round. Two sheets of measured drawings of an existing building or portion of a building, to be selected by the candidate, with the plottings and sketches.

6, 7, and 8. Three sheets of working drawings of a building of moderate dimensions, showing clearly the construction of floors, roofs, joinery, etc. The general drawing to be drawn to the scale of 8 ft. to 1 in. with ½ in. and full size details.

The School at Rome.—Resolved to exempt the holder of the Rome Scholarship in Architecture from the Final Examination under the usual conditions at the conclusion of his three years' study abroad ; and the holder of the Henry Jarvis Studentship at Rome after his two years' study abroad, provided that their work is approved by the Board.

Final Examination Testimonies of Study.—Resolved that designs prepared at the Royal Academy Ateliers and also at the " recognized schools " may be submitted for approval by candidates for admission to the Final Examination, in lieu of the same number of R.I.B.A. Problems in Design.

Trade and Craft

Concrete Blocks and other Machinery.

Messrs. Winget, Ltd., of 24 Grosvenor Gardens, Westminster, S.W. 1, have sent us two interesting booklets describing the "Winget" wagon loader, and the "Westminster" block, slab, and brick-making machine, the latest additions to the firm's concrete block and other machinery. The wagon loader is a small, non-collapsible type of elevator, specially designed for filling trucks and wagons with sand, cement, gravel, crushed stone, and similar materials. Elevator buckets are conveyed to the top of the loader, where the material is automatically discharged through an adjustable chute. The loader has a loading capacity of 12 cubic yards per hour, is light as well as strong, and is driven by a 2½ h.p. petrol or benzol engine, or, if desired, by electric motor. The "Westminster" machine brings concrete construction within the reach of the smallest builder, and, with the combined outfit, will manufacture single blocks 18×9×4½ in. ; single slabs 18×9×2 in., 2½ in., or 3 in. ; half blocks 9×9×4½ in.—two at one operation ; half slabs 9×9×2in. 2½ in. or 3 in.—two at one operation ; or six standard size bricks, all on one pallet, at one operation. If desired, the machine is supplied with accessories for manufacturing bricks only, or, alternately, for blocks and slabs.

The Surveyors' Institution at Norwich.

At a recent visit of the Surveyors' Institution to Norwich, its members were invited to go over the works of Messrs. Boulton and Paul. The visitors were received by the directors, and under personal guidance went in parties to see the constructions of Chaine-Helice and the Boulton Pump—two inventions of peculiar interest in these days of water shortage. They saw, too, the manufacture of the latest British electric - lighting plant, " Electolite." But perhaps most attention was paid to the Boulton and Paul buildings. Particular interest was taken in the huge stocks of timber which were seasoning, and the surveyors were deeply interested in the steel constructional department, and in the weaving of galvanized wire netting. Tribute was paid to the general lay-out of the works, for facilitating easy progress in manufacture and delivery.

Electric Lifts.

A very tastefully produced catalogue, full of admirable illustrations of Medway electric passenger, goods, motor-car, service, and other lifts, has just been issued by Messrs. Medway's Safety Lift Company, Ltd., of 1 and 2 Bucklersbury, E.C. 4. Most of the illustrations show the lifts that have actually been installed by the company in numerous important buildings in London. Other illustrations include one or two of the buildings themselves—Commercial Bank of London; Victory House, London; and the Grand Hotel, London—where Medway lifts are fitted. Appended to the catalogue is a long list of users of the firm's electric passenger and goods lifts, upon which are the Admiralty, War Office, H.M. Office of Works, H.M. Post Office, and the names of many prominent commercial and other companies.

New B.T.H. Showrooms in Manchester.

The British Thomson-Houston Company, Ltd., of Rugby, has found it necessary, on account of increasing business, to extend its Manchester branch, and additional premises have been secured at National Buildings, St. Mary's Parsonage, to provide more room for the display and storage of the company's well-known Mazda lamps, fittings, reflectors, and accessories. A portion of the new premises has been tastefully decorated and furnished as a fittings showroom. Here may be seen in operation a representative selection from the many novel and effective appliances invented by this progressive company, for the lighting of factories, shops, residences, etc. The personnel of the B.T.H. Company's Manchester branch includes a staff of engineers to advise and draw up plans in connection with the use of electricity for lighting, power, etc., and all residents of the town and neighbourhood interested in electrical matters are invited to pay a visit of inspection to the new showrooms.

Competition News

New Hospital Buildings at Cairo.

New buildings of Qasr el' Aini Hosp and School. Accommodation 1,225 b Assessor, Mr. John W. Simps PP.R.I.B.A. Apply, enclosing che or draft for three Egyptian pounds or equivalent in sterling, to the Secret R.I.B.A., 9 Conduit Street, London, Closing date for preliminary comp tion, October 3.

Wolverhampton War Memorial.

War Memorial adjoining St. Pet Collegiate Church. Premiums, 150 100 gs., and 50 gs. Assessor, Mr. J W. Simpson, PP.R.I.B.A. Apply, F. E. Warbreck Howell, Town Cl Wolverhampton. Closing date, August

Birmingham Hall of Memory.

Hall of Memory at the corner of Br Street and Easy Row ; cost not to exc £30,000. Premiums, £500, £300, £200. Assessor, Sir Reginald Blomfi R.A. Competitors must have occup offices in Birmingham for the past months. Closing date, October 12.

Wandsworth Park.

Laying out, for the purposes of a p and recreation ground, about 31 acre land between Garratt Lane and Buckh Road, Wandsworth. Premiums, 100 and 50 gs. Apply, Mr. P. Dodd, M.I C.E., Borough Engineer, 215 Balh High Road, S.W.17. Deposit one guin Closing date, September 5.

Partick and Whiteinch War Memor

War memorial to be erected in Victo Park, Whiteinch, on the site of the p sent sun-dial, at a cost of about £2,0 It is suggested that the memorial t a monumental form, massive, simple, a dignified, but alternative designs w symbolical figure may be lodged. T successful competitor will get the wo and second and third premiums of £ and £10 respectively are offered. App Mr. James Arthur, hon. secretary, Byres Road, Glasgow. Closing da August 27.

Members of the Society of Archite are requested not to take part in above competition without first ascerta ing from the Society that the conditio have been approved by the Council.

Watford Peace Memorial Hospital.

The following architects have be selected to compete in the Watford Pea Memorial Hospital Competition : Ashl and Newman (London) ; Briggs a Thornely (Liverpool) ; John Burnet, S and Dick (Glasgow) ; C. Ernest Elco (Manchester) ; Forsyth and Maule (L don) ; Greenaway and Newberry (We minster) ; Kenyon and Livock (Londo Wallace Marchment (London) ; Les Moore and Austin Durst (London) ; Al Munby (London) ; Murrell, Pigott, a Lowry (London) ; A. Saxon Snell (L don). Mr. William A. Pite, F.R.I.B.A., the assessor. Seventy-three applicatio were received.

Chelmsford War Memorial.

War memorial. Premiums £10 1 and £5 5s. Apply Mr. R. C. Knigl Secretary to the War Memorial Co mittee, Municipal Offices, Chelmsfo Closing date August 31.

Wednesday, August 10, 1921. Vol. LIV. No. 1388

THE ARCHITECTS' JOURNAL & Architectural Engineer

With which is incorporated "The Builders' Journal"



THOMAS LEVERTON DONALDSON (1795-1885)

At the age of sixteen, Donaldson entered his father's office, and in 1817 won the Silver Medal of the Royal Academy. Shortly afterwards he began a tour in Italy and Greece, some of the results of which were published in the supplementary volume of Stuart and Revett's "Antiquities of Athens" in 1830. He was professor of architecture and construction at University College, London, a member of the Building Committee of the Exhibition of 1851, and held numerous foreign distinctions. He was President of the R.I.B.A. in 1851.

27-29 Tothill Street, Westminster, S.W.1.

Current Architecture. 101.—The New Metropole Hotel, Northumberland Avenue, London : The Dutch Room

Remodelled under the direction of R. Frank Atkinson, F.R.I.B.A.



This room in the remodelled Metropole Hotel has been decorated and furnished in the Dutch manner of the sixteenth century, with beamed ceiling and half-timbered rough plaster walls. The fireplace and the large panel in the upper part of the chimney-piece are Dutch-tiled, the old-world Dutch effect being materially enhanced by the addition of various old brass art objects and Delft pottery.

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Notes and Comments

Manchester Travelling Studentships

BUILDERS are disposed to endow architecture. We have been lately reminded, on the melancholy occasion of the donor's death, with what munificence Sir H. Bartlett did it at University College, London. Manchester is doing it in the same benign spirit, but in a different way. Manchester District Institute of Builders have given £3,332 to Manchester University for the endowment of travelling studentships in the University's School of Architecture. It is not surprising that, at the formal presentation of the gift, the speakers laid stress on the spiritual value of it as exemplary of civic co-operation. As Sir Henry Miers, the Vice-Chancellor of the University, gracefully put the case, "This generous gift was one of the most significant and promising things for the University since he came to Manchester. It indicated that spirit of co-operation between different sections of the community upon which an institution like a modern university must be dependent. It also indicated the builder's sense of debt and duty to architects, and the architects' sense of their obligation to the craftsman." In the last clause the sense is less obscure than the expression; but there is no doubt that architects will cordially reciprocate the friendly sentiment involved in the gift, and will be particularly gratified by this generous tribute to the value of architecture to the builder, as well as to the advantage of liberal training to the architect. Education, as we have constantly insisted in these pages, is a matter in which architects and builders can co-operate to enormous mutual advantage; and here is an instance that the university is, as apparently Sir Herbert Bartlett had already realized, their most convenient rallying ground or basis of operations. Moreover, the Manchester Institute of Builders have, in this their act of enlightened generosity, taken, as Sir Henry Miers said in other words, an important step towards that larger unity in which the professional and the practical man should work in the interests of the building art. It is now the architects' turn to give substantial evidence of their interest in the education of the builder, and we understand that this point has been by no means overlooked by the various professional societies.

Paris and the Architectural Student

The holiday tide is in full flood, and, if reports are not exaggerated, is carrying to Paris visitors from this country in unprecedented numbers, including, no doubt, a strong contingent of architects. To go to Paris without any plan of campaign is to spend time unprofitably, especially in the case of the young architectural student who is a stranger to the place. Undoubtedly there is a tremendous fascination in "furraging" things out for oneself, and a "find" under these conditions is infinitely more exciting than one that is achieved of set design. But the accidental method, intriguing as it may be, is full of drawbacks, not the least of which is the missing of unsuspected good things. The advantages of a well-arranged itinerary are so obvious that it were superfluous to labour the point. But how to know what to look for and where to look for it? There must be many in the predicament of Pausanias, Jr., to whose eager inquiries Mr. Bartle Cox provides such admirable answers in this week's JOURNAL. Mr. Bartle Cox has a knowledge of Paris that is second to none, and to architectural students who contemplate a visit to the French capital his article stands in the relationship of a *vade mecum*. His very courteous offer of personal assistance is one that, we are sure, will be much appreciated by readers of this JOURNAL.

The Guards' Memorial Scheme

It will be interesting to see what happens to the Horse Guards Parade improvement scheme, which was illustrated in last week's issue of this JOURNAL. To place designs on exhibition with a view to testing public opinion before the work is put in hand is a radical departure from accepted practice. Hitherto the approved policy has been to act first and to accept (or repel) criticism afterwards—when, of course, it is too late to correct mistakes, even if there were any inclination to do so. In the case under notice, it is not to be imagined that members of the general public in any number will to go the trouble of communicating their views to His Majesty's Office of Works, who, consequently, will have to take the comments of the Press as an index to the real state of public opinion. Then will come the delicate task of balancing judgment against judgment, of weighing up the arguments for and against the project. In the unlikely event of a "dead heat" (whatever the result of the controversy there is bound to be heat), it would, no doubt, be in order for some obliging official at the Office of Works to give the casting vote. Whether or not the public may approve of the Horse Guards scheme, it is obviously one that ought to be carried out. No opportunity of improving the amenities of the metropolis should be missed. Æsthetic values have too long been neglected in the Capital City of the Empire.

Formal Planning and the Englishman

Mention of the Horse Guards improvement scheme calls to mind other projects of recent years. Rather more than a decade ago a citizen of London put forward a very ambitious scheme in connection with St. James's Park. His idea, roughly, was to convert Horse Guards Parade into a great formal *place*, with a wide roadway, somewhat on the lines of the *Sieges Allee*, cutting, from the middle of the west side of the parade, through the park, and coming out into the Mall opposite St. James's Palace. Another formal roadway was proposed between Queen Anne's Gate and the Mall. This rather magnificent project was too much for the daily Press, which burst into a veritable storm of indignant protest. There was much about "Haussmannism" and "spoiling the natural beauties of the park"; which, be it noted, were all carefully manufactured by the landscape gardener: so late as the eighteenth century that sinuously winding lake (could there ever have been water where stand the Government huts?) was nothing more than a stiff rectangle. This, of course, was unknown to the critics, who otherwise might have had less to say about "natural beauty." But truth to tell there seems to be something in the national temperament that revolts against formality of any kind. Let it be as artificial as you like, so long as it looks "natural."

"Natural" in this sense is simply a synonym for disorder. It must have been this passion for the "natural" that made somebody place the Royal Engineers' South African Memorial a foot or so off the axial line of the Duke of York's steps. No such absurd blunder, we are glad to note, will be perpetrated in the case of the projected Guards' Memorial—if the Office of Works scheme is carried through. But will it be? The defenders of "natural beauty" have been strangely quiet, but we cannot believe that they will take this challenge lying down.

A Wren Dome in Danger.

The recent intense heat, besides causing poor humanity to perspire very freely, has played queer tricks with things inanimate. Tramway rails have expanded and risen hillock-like in the roadway to form a menace to all kinds of traffic; roadways themselves, particularly those of the asphalt variety, have taken on the graceful undulations of a switchback, over which heavily laden omnibuses prance and sway like jolly boats in a high sea; brick walls have suddenly developed dangerous fissures; and upon painted doorways blisters have broken out in bulbous abundance. These things are unimportant, inasmuch as they are easily remediable. A case that gives rise to serious anxiety, however, is that of St. Stephen's Walbrook, the lead of whose dome is reported to have "crept and fallen to an extent of over 18 in." owing to the intense heat. But for a protecting cover of tarpaulins which has been hastily contrived, it is said that the first heavy shower would bring down the enrichments of the interior of the dome. Such a disaster must not be allowed to befall St. Stephen's, which, after St. Paul's, is rightly regarded as Wren's masterpiece. The great Canova is said to have remarked that he would gladly pay another visit to England for the pleasure of beholding St. Stephen's, Walbrook. The loveliness of the interior is, indeed, unsurpassable; and now it is threatened with ruin. This must never be. To preserve the church somewhere about £1,350 must be obtained, and towards this there is at present available only about £300. That the balance will be speedily forthcoming we have no doubt, and whatever help it may be in the power of architects to afford is certainly assured.

Apprenticeship and Craftsmanship

Gloucester, as the birthplace of Robert Raikes, has a reputation to maintain for educational zeal. It is acting up to it. A conference on the education of apprentices has been held there at the suggestion of the Joint Industrial Council of the Building Industry, and the discussion following a paper read by Mr. J. T. John, secretary of the Education Committee of the Council, was unusually keen. It was mentioned with regret, however, that the number of boys seeking to enter the building trade is so very small that it had been found impracticable to carry on a separate junior section of the school. This experience, sad to relate, is not at all unusual. It is, in fact, the dearth of recruits and of skilled craftsmen that has led to the present endeavour to stimulate the supply, whether by offering greater inducements to boys and their guardians, or by the more desperate expedient of raising the age of apprenticeship so that adults—ex-Service men or others—can be admitted to the various trades. It is not difficult to account for this growing avoidance of the building industry. Chief of them is the "roughness" of the work. The English have become excessively clothes-conscious, and shrink from soiling their finery. They have become so fastidious that they refuse to bear about with them the evidence of their being manual workers. It is not altogether their own fault that they have not been imbued with true notions about the dignity of labour. This may appear to be a negligible triviality, but it is really a most serious factor of the problem. How to meet it cannot be suggested; for it is only possible to get at the boy through "his sisters and his cousins and his aunts," to say nothing of his fond foolish mother; who, to do her justice, is supersensitive to th dangers of working on a scaffold, which timorousness is second count against putting a boy into the trade. A thir is the liability to be turned away at a moment's notice; fourth, that unfavourable weather conditions may keep man idle for weeks. At the Gloucester meeting, a speake insisted—quite justly—on the educational value of manu instruction in the elementary schools. Not only is it powerful means of training the eye and the hand, and thu of educating the intelligence. It helps to remove the pr judice against "rough work," and thereby tends to relie the pressure on the clerk class and to augment the numb of skilled craftsmen. Some sort of propaganda wor should be started with the object of convincing the for parent and the reluctant schoolboy that to be a clev craftsman is a thing to be desired, not despised, and tha a toil-stained garment is rather honourable than no Architects might appropriately undertake this delica mission. They should have but little difficulty in statin convincingly so excellent a case. Their exceeding ric reward would be that their designs would be interprete by as competent a body of craftsmen as this decadent wor has yet seen. It is so important a matter to all concerne in the art and craft of building that schemes of apprentic ship are most distinctly a joint concern, and architec should have been brought much earlier into the conclave.

The Road Question

One of Mr. Punch's prehistoric jests may be pardonab resuscitated in honour of Lord Montagu of Beaulieu. H recent series of articles in "The Times" marks him ou indisputably as "the modern Colossus of Roads." H has gone into the subject very thoroughly, and with r undue insistence on the merely personal interests of th motorist. Naturally he regards tramways as being out date—"when new roads are made, they should provi primarily for free-wheeled traffic rather than for light ra ways." A further adventure in prophecy is that, Londo streets becoming every year less adequate for the increa ing traffic, overhead or underground carriageways w have to be constructed before long, widening being in mo places too expensive. Holborn Viaduct he cites as a instance of what may be done where two busy streets inte sect, and he believes that the principle could be easily ar advantageously applied, for instances, to Piccadilly Circu Regent Street, Shaftesbury Avenue, Hyde Park Corne Fleet Street and Ludgate Hill, and at other spots whe there is frequent and almost constant congestion of traffi There is, he observes, "only one fairly spacious exit no from London—that to the Great North Road, past Lord Cricket Ground and through St. John's Wood and Finchley Other arterial roads, though straight and wide, are n adequate to the traffic demands. For years architects ar town-planners have gone very carefully into these question and they will be glad of the powerful support of Lo Montagu for most of their proposals.

Hutments to Go at Last!

The good news is almost unbelievable, yet we have th assurance of a member of the Government that the hu which too long have cumbered the earth and spoiled th view of the Embankment Gardens will almost certain have disappeared by this time next year! Alas! there always a fly in the ointment where Government promis are concerned. There can surely be no good reason f retaining these unsightly buildings any longer, especial now that a considerable reduction is being effected in th personnel of Whitehall. And what of the hutments St. James's Park? Let the Government take courag and a hatchet, and make a speedy end of these hutment also of those that still cover the roofs of the Admiralty buil ings at Charing Cross. Their continued retention is a affront to architecture in particular, and the amenities general.

Things to See in Paris

By H. BARTLE COX, A.R.I.B.A.

(*Ancien élève atelier Laloux, Paris*)

PAUSANIAS, Jr., writes: "I, probably like a good many other young architects, am making arrangements for spending my brief holiday in Paris. I have very little knowledge of the architecture of Paris, and shall be obliged if any of your readers will answer the following questions :—

"May one take photographs or sketch in Paris? If not, is it possible (and how) to get a special permit? What can one do in the way of getting a permit to visit any building, if there be such, which is ordinarily closed to the public?

"Can you give me a list of (*a*) the things I *must* see; (*b*) the things I ought to see; and (*c*) the things that one ought to see if time permits?

"Where can I see the best domestic Renaissance work in Paris, and what books will best help me to study Paris? As some indication of my leaning, I may say the Musée Galliéra is the sort of thing I feel I must see. Armed with such answers as I hope these questions will bring forth, I expect to sleep well o' nights in Paris."

—Well-merited architectural holiday trips are very enjoyable and sometimes even profitable. Armed with camera, sketch-books, two-foot rules, tapes, and permits, one is at least in a position to talk about doing some work. If time is short, and it always is, it is just as well to know the names of the buildings that one really went to study.

The giving of advice is always dangerous, even when asked for, but Paris is such a fascinating place that one might suggest the following answers to Pausanias's questions, for in ninety-nine cases out of a hundred the advice would be taken, more particularly by architectural students on a brief holiday, for to them "time is the essence of the contract."

The things I *must* see: The Folies Bergères and The Moulin Rouge.

The things I *ought* to see: The Morgue and Les Egouts (sewers).

The things that one ought to see *if* time permits: Notre Dame, Napoleon's Tomb, etc.

All these elevating sights, together with the Eiffel Tower (another tall order), can be arranged through Cooks, who will also conduct you to the Catacombs and save you making any more bones.

Of course, opinions vary, and some tiresome enthusiasts might like to reverse the order and endeavour to learn something. To them I would suggest as the best guide-book Baedeker's "Paris." It has good maps, reliable information about hotels, streets, communications, museums, public buildings, and useful data about works of art without mawkish criticisms and vapid appreciations. The snob could very soon learn what he must admire, but Pausanias could plan his tour from Baedeker and then form his own opinion about what he sees.

Tastes differ, and for that I must admire Pausanias when he says that a certain museum "is the sort of thing I feel I *must* see." He at least has some opinion, and that in itself is good. The Musée Galliéra in the Avenue du Trocadero, built by Ginain in the Italian Renaissance style, has been much appreciated and duly slated. It would be difficult to point out other buildings in Paris quite of a similar taste, but another building by the same architect is the Ecole de Médecine, Boulevard St. Germain, in a tasteless Neo-Grec style, motifs from which have travelled as far as Liverpool. A building that Pausanias might (or might not) like to see is the chapel called Notre Dame de Consolation, Rue Jean-Goujon, built by Guilbert, in a modern Ecole des Beaux-Arts Louis XVI style. The Armenian chapel in the same street, but of a very different aspect, is by the same architect. Taking the Musée Galliéra as an indication, I think our inquirer would be charmed with the interior court of the Petit Palais, designed by the last recipient of the Royal Gold Medal—Monsieur Girault.

An interesting part of Paris for domestic Renaissance work is the Quartier du Marais, north-east of the Hôtel de Ville. Here can be seen the Archives Nationales (Hôtel de Soubise), the Imprimerie Nationale (Hôtel de Strasbourg), Musée Carnavalet (residence of Madame Sévigné), architecture by Lescot, Bullant, Du Cerceau, F. Mansart, and sculpture by Jean Goujon. There is other domestic work in this neighbourhood, especially in the Rue des Francs-Bourgeois, and in the Rue François-Miron, with the Hôtel de Beauvais designed by Ant. Lepautre.

The plutocratic part of Paris is the Etoile, and the aristocratic part St. Germain. In this latter district are some very fine houses, but for the most part the names of the best specimens must be known and permission obtained to visit them. Their façades are generally hidden from the gaze of the curious by high walls. The addresses of some of these can be found in Ward's "French Renaissance Architecture," an excellent book well worth consulting before coming to Paris.

Here, perhaps, I may be allowed to offer the information that the French word "Hôtel" does not always mean a place for visitors, but more often corresponds to our English words town mansion, large house, villa, etc. The Hôtel des Postes is the General Post Office, and L'Hôtel Dieu, near Notre Dame, is the chief hospital of Paris, perhaps the oldest in Europe. Many people know that an Hôtel de Ville corresponds to a town hall, but they don't always realize that an "Hôtel particulier" is a private residence as distinguished from a flat. A good book on Parisian domestic Renaissance work is "Vieux Hôtels de Paris," by J. Vacquier, in eleven volumes, 850 fr. A building of considerable renown is François Ier's villa from Moret, re-erected in the nineteenth century in the Cours la Reine at Paris. This is on the right back of the Seine, west part of the town, and since the war is called Cours Albert Ier.

With reference to photos and sketching, one may say that, as a general rule, there is no difficulty. Officially one should be provided with a permit from the Préfecture de Police, but the law is one thing and its rigorous "mise en vigueur" another. People take snapshots all over the place, but if you set up a professional-looking camera for a time exposure you are liable to be asked if you have a permit. Sketching is done everywhere, but for interiors you must generally have a special permit from the authorities of the building in question. Permits are usually easy to obtain, but a little discretion and a certain amount of palm oil generally saves time. A word for those who rest on Sundays: museums and many public buildings are closed for cleaning on Mondays.

Englishmen can generally get special permits for special buildings by making an application through the British Consulate, 6 Rue Montalivet. For this purpose it is advisable to have a passport and other identification papers in due order. A letter on headed notepaper from the R.I.B.A. stating that the applicant is a bona-fide student would greatly facilitate the request.

The average English architect comes to Paris (1) to amuse himself; (2) to measure a few details of little importance with a view to using them in an office in England; (3) to

study the fine art of architecture in the big sense. The last is the most important, and if the least remunerative, is not so expensive nor so fatiguing as the first. Pausanias, if a lover of the naked truth, might like to obtain a permit through the Consulate to visit the library of the Ecole des Beaux-Arts, and then ask to see some of the Grand Prix de Rome designs. He could then form his own opinion, if capable of the odious method of comparison, as to whether any other country could produce the like. As an example of the influence of French training, the Sorbonne, by Monsieur Nénot, should be studied when in the neighbourhood of the Musée de Cluny and the Panthéon.

Different people come to Paris with different ideas, but the writer of this article, an English-Parisian, has often been honoured by being asked to act as cicerone to well-known English confrères, and he has generally found that much time and energy is wasted by the visitors not knowing beforehand what they really want to study; but, as Pausanias says, he expects to sleep well o' nights in Paris. I take it he will keep away from the Moulin Rouge and not worry about the Morgue unless he loses a friend.

There are many ways of profiting by a visit to Paris; it can be studied historically and artistically, noting the things, irrespective of date, which strike one as being æsthetic. It is particularly interesting as combining in an harmonious ensemble ancient and modern work. Roman remains can be seen at the Musée de Cluny, and are well worth studying from the point of view of scale. They are the ruins of a Frigidarium of an ancient palace of the emperors. The Musée de Cluny, corner of Boulevard St. Germain and Boulevard St. Michel, besides containing a most valuable collection of mediæval objects of art, is in itself a remarkably fine specimen of the late Gothic style. Other mediæval buildings in Paris not to be missed are La Sainte Chapelle, a part of the Palais de Justice, erected 1248, a gem of Gothic architecture, remarkably light and elegant, with successful polychrome decorations and magnificent stained glass. The cathedral of Notre Dame, of course, is too well known to require comment, but a young architect should always go up the towers of every building he can, so as to get a view of the lay-out of the town.

Renaissance buildings are too numerous to point out, but important ones are the Louvre, the Ecole Militaire, the Panthéon, the Invalides with Napoleon's tomb under Mansart's dome. Wren was in Paris when the dome was in course of construction. The establishment known as the Hôtel des Invalides covers an area of about thirty acres and is an extremely important ensemble for architects. For proportion in planning it is one of the chefs-d'œuvre of Europe; its æsthetic qualities are well explained in Guadet, and a good plan can be seen in Baedeker.

With reference to modern buildings, one should notice La Gare d'Orléans, the Grand and Petit Palais, the Church of Le Sacré Cœur by Abadie at Montmartre, the Boulevard Raspail, with the Hôtel Lutetia (for visitors), and Flats at Passy west of the Trocadéro.

The study of Paris is the study of architecture in the grand manner; small houses are rare, flats over business premises form the civic decoration of the main thoroughfares. Paris is an architecturally organized city, and not an overgrown village. It is generally considered the most artistically laid out city in the world; its town-planning aspect is, therefore, the first consideration for the architectural student. Note the treatment along the banks of the Seine, the Pont Neuf (the oldest bridge in Paris), the Pont Royal by the architects Mansart and Gabriel, the Hôtel des Monnaies (the Mint) by Antoine, near the Pont Neuf: note the vestibule of this building.

On the same side (rive gauche), but farther west, are some interesting modern buildings. For formal planning note the rond-point des Champs Elysées and the Arc de Triomphe de l'Etoile (the biggest in existence), the Avenue des Champs Elysées, Place de la Concorde, with Gabriel's two façades flanking the Rue Royale with a view of the Madeleine at the bottom. Gabriel's two façades are of exquisite proportion (see Guadet), and generally considered by connoisseurs as superior to Perrault's colonnade at th Louvre. On an axial line with the Madeleine is the twelve columned portico of the Chambre des Députés (ancie Palais Bourbon). With the Rue de Rivoli, the Tuileries Gardens, and the Louvre, this makes an ensemble sur passing in civic magnificence anything yet realized b man.

Other points of a similar nature are the Trocadéro an the Ecole Militaire, the Grand and Petit Palais, Pon Alexandre, and Esplanade des Invalides. Interestin squares are the Place Vendôme (notice treatment of cor ners) and the Place des Vosges, with delightful house round in Henry IV style. Eastward of the city is th Place de la République, and farther east the Place de l Nation, with monumental columns and entrance gates b Ledoux, and a fine bronze group by Dalou representin the Triumph of the Republic.

Paris is par excellence the city in which to study th decorative aspect of town planning, and for that I give th names of a few well-known fountains and statues.

Fontaine Bouchardon, with sculpture by Bouchardon Rue de Grenelle 57–59, described as "un des beaux édifice de l'architecture civile du xviii s."

Fontaine des Innocents, with sculpture by Jean Goujon in a square near Boulevard Sebastopol and Rue Berger.

Fontaine Molière (Rue Richelieu), with statues by Pradie

Fontaine Saint-Michel (Place St. Michel), by the arch tect Davioud.

The beautiful Fontaine de Médicis, by the architec Debrosse, with Doric columns and imitations of stalactite is a much admired decoration to the Renaissance gardens the Luxembourg Palace (now the Senate).

Dotted about Paris are fifty small fountains (all of th same design) given to the city by Sir Richard Wallac There are many others of note, but I will finish my lis with a tasteful little fountain that might please Pausanias it is in the Boulevard du Temple, and is called Une Fon taine de Jean, erected 1906 from designs by Monsieu Formigé, architecte de la ville.

A catalogue of names is not interesting, but our corr spondent asks to be told what he ought to see, and if th visitor's time is limited it is just as well that things shoul be pointed out. Some statuary that should not escape h notice is La Marseillaise, by Rude, on the Arc de Triompl (de l'Etoile); a statue to Maréchal Ney by the same sculj tor (Avenue de l'Observatoire); Fontaine de l'Observ toire, horses by Frémiet, and group by Carpeaux; L Dance, by Carpeaux, on the right of the façade of th Opéra. There are many other fine groups, but the abo were among the chefs-d'œuvre protected during the w from air-raids.

A good book in French giving common-sense informatio as to the organization of Paris from a decorative civ point of view is "La Voie Publique et son Décor," b Fernand Bournon, illustrated with sixty-four plates, and only costs about twelve francs, published by H. Lauren 6 Rue de Tournon. An address where picture post-cards almost any building of note in Paris and the provinc can be bought is L. Olliver, 8 Rue de Seine (just behind th Institut). A visit to Paris would not be complete witho going to Versailles, and one ought to see Fontainebleau an if time permits, St. Germaine, Chantilly, and St. Denis.

I would advise serious students to consult the numero books on French architecture at the library of the R.I.B.A and especially the excellent work by P. Planat, entitl "Le Style Louis XIV," ditto XV, ditto XVI; armed in th way, with notes taken and addresses found in Baedeker, profitable trip could be planned in advance, and mu time, energy, and money saved by mapping out an iti erary according to districts.

The writer would always be pleased to help any Pa sanias or other reader of THE ARCHITECTS' JOURNAL shou they care for any tips from a confrère who knows som thing of the ropes. His address can be found in t R.I.B.A. Calendar.

La Ville-Lumière is a Sphinx. *Fluctuat nec Mergitur.*

Current Architecture. 102.—The New Metropole Hotel, Northumberland Avenue, London: Detail of "Adam" Room

Remodelled under the direction of R. Frank Atkinson, F.R.I.B.A.



The Hotel Metropole, which was taken over by the Government during the war, has passed again into the hands of its proprietors, and has been remodelled, redecorated, and refurnished throughout. The "Adam" Room shown above is decorated in Wedgewood blue and white, making an extremely effective interior.

The Remodelling of the Metropole Hotel

ONE of the finest examples of post-war reconstruction in London is to be found in the New Metropole otel, Northumberland Avenue. During war the New Metropole was one of three hotels of the Gordon Hotels mpany, Ltd., taken over by the vernment. It has once more come into possession of the company, and has en thoroughly overhauled, redecorated, l refurnished throughout.

n the entrance-hall and principal offices the main floor the heavy and oppres-e impression of marble and mahogany entirely disappeared, and the former l the lobbies have been treated with a v material known as Stucpeint by ssrs. Holland and Hannen and Cubitts, l. The reception offices are so arranged t there is a separate entrance which nmunicates with the lifts, so that there no necessity for newcomers to pass ough the visitors sitting in the lounge. The lounge has been remodelled by ssrs. Harrods, Ltd. Of fine proportions, s apartment has been designed in the orgian style and decorated in delicate es of apricot, enriched with gold. The pet is of a tone of powder-blue, which monizes well with the jade-green peries. Spacious elbow-chairs are ed with black and gold silk cushions. tees and chairs with rich rose-coloured erings add to the charm of the sur-ndings, and finally complete the our-scheme of the artist. The furni-e in this room was supplied by Messrs. mpton & Co.

n convenient proximity to the lounge he ladies' writing-room, decorated by ssrs. Holland and Hannen and Cubitts, completely furnished by Messrs. Har-s. The walls are panelled in tones of grey, while there are curtains and val-es of exquisitely coloured chintz; and carpet of powder-blue velvet adds to harmony of effect. Particular atten-n has been given to the furniture, which nished in tones to harmonize with the eral decoration, and is relieved by e-lined motifs, which form an entirely note.



THE CHINESE ROOM.

At the right of the entrance hall is situated the Café Anglais, which Messrs. Hampton have created, with fine effect, from the coffee-room of the "old" Metropole. The café is decorated in tones of sunset yellow—the sort of yellow in which is incorporated a hint of apricot pink. There is a Wilton carpet that has been specially woven for the room. It is a reproduction of a Louis XVI pattern in black, jade-green, and apricot-yellow. There are curtains of apricot-tinted fabric, embroidered in black and jade-green. The lighting of the café is a special feature, and the fittings of French gilt have large silk shades, painted and decorated with garlands of gaily coloured flowers (by Messrs. Davis, Cash & Co.).

The Restaurant des Ambassadeurs is the newest and most modern feature of the hotel. In this apartment Mr. Ashby Tabb, who is responsible for the decorative scheme of reconstruction, has given full scope to the imagination in the use of colour as opposed to conventional effect. Messrs. Martyn, of Cheltenham, have carried out all the decorative work. The idea of the room is to suggest in the walls and ceiling the effect of an opalescent glow. The result has been secured by superimposing upon a groundwork of silver-leaf, coats of transparent lacquer in various clear shades of blue, pink, yellow, and white. The floor is covered with a petunia-coloured carpet which has been specially dyed and woven. The curtains by Messrs. F. A. Stutely are of silver tissue, embroidered with careless clusters of flowers in petunia and blue silks. Messrs. B. Cohen and Sons, Ltd., have supplied the chairs, which are of black lacquer, upholstered in brocade, the predominant colours being petunia and blue. In the lighting of this room all strong direct light has been avoided, and fourteen Chinese lacquer girandoles (by Messrs. Davis, Cash & Co.), carrying tulip-shape silk shades, throw the light to the ceiling and reflect it in warm and becoming tints upon the tables.

In the centre of the room advantage has been taken of the four columns necessary for structure, and a fascinating series of shaped settees have been built in this space. In the middle, rising from a Chinese lacquer *jardinière* massed with flowers, is a jade bowl, concealing powerful lights which illuminate the room by light reflected from the opalescent ceiling. Most decorative schemes are greatly helped by the introduction of "black," and here an opportunity occurs for its inclusion in a series of ebony doors and screens. One end of the Restaurant des Ambassadeurs has a spring floor for dancing. Attached to this restaurant is a perfectly equipped kitchen, and this, as well as the other kitchens for the service



THE GARDEN LOUNGE.

of the Café Anglais, the private dining-rooms, and other requirements, has been designed and executed by Messrs. Richard Crittall & Co., of London, Liverpool, and Paris.

Ingenious planning enables both the Café Anglais and the Restaurant des Ambassadeurs to have their respective kitchens on the same floor level and adjoining, thus ensuring perfect service. A very extensive scheme of ventilation obviates the risk of the kitchen atmosphere permeating the restaurants through the service doors. In addition to large central ranges, built on the Fourneaux system, and the usual appliances required to complete the kitchen and auxiliary departments, lofty, light, and well-ventilated larders and preparation rooms, fitted with cold stores and cupboards, are provided.

On the main floor a series of five rooms of varying sizes for private luncheons and dinner-parties, for which Messrs. Hampton are responsible, has been arranged. They will accommodate from two to ten, twenty, or thirty guests, and comprise the Dutch room and the "Adam" room. Then there is the Louis XVI room, where there are walls like old ivory relieved by dull gold, and furniture with its white and gold framework upholstered in dainty brocades. Rose-coloured lights complete a charming picture.

The Dutch room is decorated and furnished throughout in the Dutch manner of the sixteenth century, with beamed ceiling and half-timbered rough plaster walls. The fireplace and a large panel in the upper part of the chimneypiece are Dutch-tiled, the old-world Dutch effect being materially enhanced by the addition of various old brass art objects and Delft pottery. The floor is covered to the skirting with a matting of interlaced blue and grey strands. The curtains are of cretonne in a diaper pattern of Delft blue and white, lined cream, and finished with a blue fringe. The furniture is of oak, the six armchairs being of the Windsor type, fitted with loose seat cushions. The settee is deep-seated and fitted with a full-length seat cushion and two loose back cushions filled with down. All these are covered with a narrow-striped blue tapestry.

The "Adam" room is decorated in Wedgwood blue and white, with curtains in plain beige velvet, enriched with a four-inch insertion with design in blue silk woven on a beige ground, lined beige colour. The floor is close-covered with a figured Wilton carpet in beige colour on a blue ground, with an oval medallion centre. The Adam furniture is in mahogany, and the six armchairs have caned seats and loose bordered cushions. These, together with the settee and seats of small chairs, are covered with silk having a bold Adam design on a striped ground.

Then there is the Chinese room, decorated in Oriental blue, with mouldings and other decorative details enriched with gold, the walls being suitably furnished with a red lacquer framed mirror and Chinese coloured prints. The curtains are of blue and gold silk with lambrequins of gold-coloured silk, edged and decorated with inch-wide black braid. The upper part is furnished with long tassel pendants. A blue ground Chinese design Wilton carpet, with a surround of plain blue Wilton, is fitted close up to the skirtings. Six Chippendale armchairs are provided, lacquered red and gold, with upholstered drop-in seats covered with damask, and there is a settee lacquered red and gold, with caned back and sides, fitted with full-length bordered seat cushion and three loose back cushions.

The fifth and largest room of the series will accommodate thirty guests. The panelled walls are of a clear transparent grass-green relieved with bronze. Mahogany furniture and bronze fittings for the lights complete the harmony of the whole.

The King's room, to be opened in October, has been evolved from part of the famous Whitehall suite of the "old" Metropole. Messrs. Harrods have entirely transformed its gloomy grandeur into an apartment of appealing gaiety. It comprises a ballroom with two floors for alternative use a large one covering the entire surface, and a small one for the centre of room when space is required for supper tables round. The ballroom will be decorated in azalea colourings. There is also a Georgian supper-room decorated in pink and gold.

The ladies' cloak-room, which is situated on the main floor, has all the decorative advantages of a colour-scheme of lavender-grey, bleu de ciel, and old rose, with dainty Louis XVI furnishings, and perfectly arranged and organized fitments and toilet appliances.

Aided by Messrs. Martyn, of Cheltenham, who have carried out all the work on the ground floor, Mr. Ashby Tabb has exercised his taste and ingenuity in the garden lounge to reproduce successfully the atmosphere of a summer garden bathed in sunlight. Not only can one sip a cocktail or enjoy a cup of tea, but also those who are light-hearted and light-footed may "dance a measure" on a perfectly laid spring floor.

The adjacent American bar has all the latest fitments. In neighbourly proximity to the American bar is the office of Messrs. Keith, Prowse & Co., the cigar and cigarette kiosk, while the hairdressers' rooms are across a passage leading to the smoking-room.

It is difficult, in so general and diversified a scheme of beauty and comfort, to particularize concerning the private suites comprising bedrooms, sitting-rooms, and bathrooms, situated on the upper floors. The general bedroom accommodation is all so admirable, both in its decorative elegance and its attractive quality, that descriptive equality seems the only method of treating a really exhaustive subject. All the suites and bedrooms are distinct in character and design, and all the walls are painted in some soft pastel shade.

Some beautiful special suites have been designed and executed by well-known firms. Six of these are by Messrs. Hamptons, three by Messrs. Harrods, and six by Madame Gloria Silva. Messrs. Cohen have also designed some beautiful rooms.

Sir Francis Towle, managing director of the company, has used his experience in personally supervising every detail of reconstruction. Mr. Frank Atkinson, F.R.I.B.A., has overcome the architectural difficulties with immense cleverness and resource, while Mr. Ashby Tabb, by his keen perception of the value of colour as a background to beauty and form, has done much to make the New Metropole the delightfully attractive place that it has now become.

B.E.S.A. Annual General Meeting

The British Engineering Standards Association has held its third annual meeting at the Institution of Civil Engineers, under the chairmanship of Sir Archibald Denny, Bart. Some eighty members were present.

The chairman in his address touched on many aspects of the work in its connection both with home and export trade. He emphasized the progress made in regard to the revision of the steel specifications; the standardization of railway materials, in which the Association was taking more and more part with the cordial co-operation of the railway companies; the automobile work, which was now completely reorganized; the work in connection with a British specification for girder bridges, so badly needed; the extensive programme of standardization of details in the construction of ships and their machinery; the important development in electrical work; and the difficulties surrounding the standardization of aircraft materials and parts. He mentioned that the chemists and chemical engineers were now making use of the organization. He also referred to the satisfactory working agreement which had been arrived at with the various research associations. With regard to the work abroad, he mentioned that there were eleven local committees actually at work.

Coming Events

THURSDAY, AUGUST 11.

The Industrial Council for the Building Industry. Annual Meeting of the Council at Montagu House, Whitehall, London, S.W. 1, on Thursday, August 11, at 2.30 p.m., and on Friday, August 12, at 10.30 a.m.

Agenda.

1. Notice convening the meeting.
2. Minutes of last meeting and matters arising therefrom.
3. Treasurer's report and accounts.
4. Receive reports, if any, of Council Committees, and if thought proper to resolve thereon: (*a*) Management and Costs Committee; (*b*) Safety and Welfare Committee; (*c*) Education Committee; (*d*) Administrative Committee; (*e*) Resettlement Committee.
5. Receive, and if thought proper to resolve upon, (*a*) communications, if any, from Government Departments, and (*b*) any other correspondence.
6. Mr. Thos. Foster has given notice to move: "That the decision of the Council at the meeting on Feb. 11, 1921, to invite one representative from each professional body' to serve on Committees of the Council be rescinded and the following resolution substituted: 'That on Committees of the Council where their assistance will be valuable, representatives of the Professional Associations may be appointed, such representatives on any Committee to be not more than three in number, their appointment to be made by the Council on the nomination of the Professional members of the Council.'"
7. Election of officers and committees.
8. Any other business that may be presented by the Chairman.
9. Date and place of next meeting.

Current Architecture. 103.—The New Metropole Hotel, Northumberland Avenue, London

Remodelled under the direction of R. Frank Atkinson, F.R.I.B.A.



CAFÉ ANGLAIS.



RESTAURANT DES AMBASSADEURS.

Above are shown two handsome apartments in the recently remodelled Metropole Hotel. The Café Anglais and the Restaurant des Ambassadeurs are both remarkable for their extremely fine colour-treatment, the latter apartment having been decorated in glowing colours by Mr. Ashby Tabb. Full particulars of the work are given in the article beginning on page 159.

Painting Stucco-fronted Houses

By A. S. JENNINGS, F.I.B.D.

N Bayswater, Kensington, and other districts of Western London, there are many thousands of houses, mostly four five stories high, which were built in Victorian times, and which have whole of their fronts finished in ucco." The problem which presents lf almost daily to the architect and to decorator is how such houses—many a distinctly imposing character—may best painted, and particularly what ours are most appropriate.

t is somewhat extraordinary that h fronts are almost always painted what is usually known as "stone-our," i.e., a light cream or buff, made mixing a little yellow ochre and umber white lead. It is safe to assert that ough this particular colour, or want olour, is so often used, it is one of the st to resist the action of the weather London. Within a very few months ts application, it becomes dirty, and n the beginning it has a very insipid earance. When the paint contains, it always should in such cases, a e good mixing varnish, the appear-e is somewhat improved, but even the stone colour is distinctly not the t colour to use.

t is true that one sometimes comes ss fronts painted in fairly bright urs: Indian red or red oxide, subdued s and greens, appear to be the favour-ites, when the stone colour is departed from. Unfortunately, the class of house referred to is very frequently built in terraces or rows, and each house is exactly like its neighbours in design and structural ornamentation. Under such circumstances the adoption of some special colouring for a single house renders it very conspicuous, and the average lessee or owner adheres to the time-honoured stone colour merely because he does not wish to be different from his neighbours, or to have his house stand out conspicuously in the row as being very different from the rest. Indeed, so far is this idea carried that some appear to imagine that it would be almost as bad to use a warm and attractive colouring on one's house as it would to wear a bright red tie with evening dress.

Of course, the best way, if it were practicable, would be for the owners of all the houses on the same terrace, or row, to agree upon a colour with which they should all be painted, and if this were done the sombre and insipid might be changed into something bright, attractive, and cheerful. But, failing that, it remains to be considered what colours may be used with good effect under existing circumstances.

Rich reds as a rule are too assertive; in greens which are not too bright, and in dull yellows approaching cadmium yellow in hue, in peacock blues and in tints of Indian, Venetian, and other sombre reds, will be found an ample choice. But they should be *tints*, not the full colour, and if used judiciously will be found to look well and not show up too conspicuously among their less attractive neighbours. It need, perhaps, hardly be added that the only way to judge as to the colour effect is to paint a fairly large surface (on paper will do if the weather is fine), in several different colours, to tack these on to the front, and to view them from a distance, say from the opposite side of the road. If this is done a glance will enable a competent man to decide which is most suitable.

Perhaps the very best way to finish the sashes is to use white enamel, the frames being done in black to form a contrast. Or the frames can be in white and the sashes in black. If the front is of brick, a colour note is desirable, and this may be introduced also with good effect in stucco-fronted buildings. The idea is to introduce brightness and colour to the whole front, and this is best done by dealing with the front door. There are many brilliant colours which may be used in such a position with advantage, for it must be remembered that the superficial area of the door is small as compared with that of the whole front, and that therefore a bright colour is not objectionable.



THE NEW METROPOLE HOTEL, LONDON: LADIES' WRITING ROOM.

Very bright red, say geranium red, carmine, even crimson, may be used on a front door, and so may certain vivid blues, of which the simplest is Prussian blue. Ultramarine is not, as a rule, successful, but cobalt, or, better still, peacock blue made on a cobalt base, produces a distinct but refined colour which is almost always acceptable. Rich yellows and browns may be produced by the aid of cadmium-yellow and special grades of sienna, which are best purchased put up in collapsible tubes, not because that form is necessarily of superior quality, but because it is usually not inferior.

The best results on a front door of any important residence are obtained by the glazing process, in which a bright colour is applied over one which has a more solid but sombre line.

As to the paint itself, white lead is used for such work, perhaps, in ninety-nine cases out of a hundred, with the result that when the weather is foggy or stagnant it is very likely indeed to darken and assume a certain metallic appearance which is quite familiar to most West End decorators, and very puzzling to most of them. It arises not from the use of adulterated materials, as is sometimes assumed to be the case, but is a perfectly natural chemical reaction arising from the presence of sulphur in the atmosphere, which is derived from the burning of coal and to a lesser extent from gas. This, combined with the white lead, forms sulphide of lead, which is black. White lead makes, of course, an excellent paint under many conditions, but if a large proportion of zinc oxide or other inert pigment is mixed with it, the likelihood of blackening will be materially reduced. Earth colours such as ochre, high-class Indian and Venetian red, sienna and umber, are the most durable and the best calculated to give good results if used in a London atmosphere, toned down of course with a suitable amount of white lead, zinc oxide, or even lithopone of specially selected quality. Antimony oxide is another claimant for favour, but its merits are but little known at present among house painters and decorators.

As to the best means of applying the paint whatever its nature may be, the average reader would not hesitate to apply it by means of brushes in the ordinary way. During the last year or so, however, there has been developed a system of painting such work by means of spraying by compressed air, which bids fair to revolutionize this class of work. Paint spraying has been used for years in many industries with complete success, but its application to house painting is more or less recent. The constituents of the paint are of no moment. Any paint or varnish up to the consistency of tar can be sprayed without difficulty, provided that they are ground sufficiently fine to pass the nozzle of the spraying machine. The apparatus, which includes a small dynamo, is mounted on a trolley, from which it can be taken from place to place. Two long tubes or hose are attached, one supplying the prepared paint under slight pressure, and the other air under compression up to say 25 lb. to the square inch. The operators work from cradles suspended from the roof, and as they may be moved from side to side and up and down as required, the work can be done with extraordinary speed—say, at a moderate estimate, one-sixth of the time it would take by the use of brushes in the ordinary way. Of course, the surface must be carefully and thoroughly cleaned down before the paint is applied, and this having been done the work of spraying can proceed without difficulty. In dealing with that portion of the work which is next to doors and windows, a piece of tin or cardboard can be held close to the opening so as to "cut in" successfully.

Enquiries Answered

Material for Model Bricks.

S. E. M. writes: "Please suggest a material suitable for making model bricks for demonstration purposes. Portland cement would do, but it takes a long time to set. The required material should be quick-setting, should be hard when set, and should stand a good deal of handling."

—The most quick-setting material is plaster of Paris; but this is not very hard, and easily rubs away when in use. It may be made harder by a coat of varnish if this is applicable. Some of the dental cements are very quick-setting, but they are far too costly for extensive use, and cannot be made cheaply. Moreover, they require much skill in mixing and use. If the blocks are small and not likely to be subject to much weight or pressure a very lean concrete would be the best. It should set well enough in ten hours, so that if the blocks were made one day they would be ready for use the next day, though for great durability they should be kept in water for a week. If the requisite plant is available, a mixture of sand and lime would be best, but it requires steam under a high pressure. The same remark applies to the use of water-glass, which requires to be baked at 450 deg. Fah. but then gives excellent results, though it is rather "messy" to use. There are various waxes and mixtures containing resin which might be used, but they are not easy to prepare, and require to be melted before use. Spon's "Workshop Recipes" may possibly contain a suitable material, but a glance through it does not suggest any which will meet the requirements of the querist. A. B. SEARLE.

Names of Boiler Makers.

"J. H. G." writes: "Kindly give me the addresses of makers of the following boilers: (1) Bull's Head; (2) Farm; and (3) Family."

—(1) The type of boiler described as the "Bull's Head Boiler" is probably what is known to us as a "Dish-ended Lancashire Boiler." If so, boilers of this type are manufactured by Messrs. John Thompson (Wolverhampton), Ltd., Wolverhampton. Possibly, however, this may be an American type, but our expert has been unable to identify it with any American-made boiler.

(2) Farm Boilers are mainly portable or of the traction-engine type, and are made by such firms as Messrs. Marshall Sons & Co., Ltd., Gainsborough; Messrs. Clayton and Shuttleworth, Lincoln; and Messrs. Ruston and Hornsby, Lincoln.

(3) The Family Boiler is no doubt the ordinary type of heating boiler supplied by the following firms: Messrs. National Radiator Co., Ltd., 439 Oxford Street, W.; Messrs. Jas. Keith and Blackman, Ltd., 27 Farringdon Avenue, E.C.; Messrs. Lumby, Son, and Wood, Greetland Boiler Works, Halifax, England.

Quantity Surveyors' Fees for Abandoned Housing Schemes.

"Trebla" writes: "We are greatly interested in the article 'Architects and the Housing Fiasco' over the initials H.J.B., in your issue for July 27. So far we have seen no mention as to what is to happen as regards quantity surveyors' fees for abandoned schemes. We shall be greatly obliged if you will inform us whether any information can be obtained regarding this point, and also as regards new roads and sewers."

—The question of quantity surveyors' fees for abandoned schemes is still unsettled, but will probably be arranged at a meeting between the officials of the Ministry and representatives of the Quantity Surveyors' Association, which is shortly to take place. With regard to roads and sewers, our querist is referred to Memoranda Nos. 4 and 52 of the Ministry of Health, which are still in force.

Dixmude

Architects who knew Dixmude as it was before the war will learn with regret that nothing is now left of this fine old famous old city. To-day its citizens are restarting their lives amid the ruins, mourn most of all the loss of their city which to them was a precious spiritual possession. Many others, and among them English artists and architects, will share their sorrow, for Dixmude was once a place of artistic pilgrimage. Nothing that man can now do can give back to the people of Dixmude their beautiful city, but an effort is being made by some British and Belgian sympathizers to collect paintings, etchings, drawings, books, and other records for presentation to the citizens. The British committee is headed by Mr. Frank Brangwyn, R.A., and Mrs. Ord Marshall, C.B.E., is the hon. secretary. Mr. Brangwyn has already collected some forty pictures of Dixmude and its buildings. These are the gift of several well-known Belgian artists and of Mr. Brangwyn himself. The collection is now housed at 124 Belgrave Road, Westminster, and will be reopened for inspection in October. Admission will be free, but it is hoped that visitors will buy a catalogue, as the profits on its sale are to be devoted to a fund for the provision of an art gallery and reference library to be designed in Dixmude's traditional style, and built from the bricks and stones which lie in meaningless heaps where once the city stood. The collection has already been visited by Princess Louise (Duchess of Argyll), the Duke of Connaught, and the Belgian Ambassador. So far the only British artist represented is Mr. Brangwyn. If any architect has any sketch or record of Dixmude which could spare it would be greatly welcomed. It should be sent to Mrs. Ord Marshall at 124 Belgrave Road. The catalogue to the present exhibition has been illustrated by Mr. Brangwyn, and contains a special introduction by Crossley Davis. Copies can be had from Mrs. Marshall. The minimum price is 2s. 6d., but there is no maximum. It is well worth the money.

War Memorials. 16.—The Dover Patrol Memorial

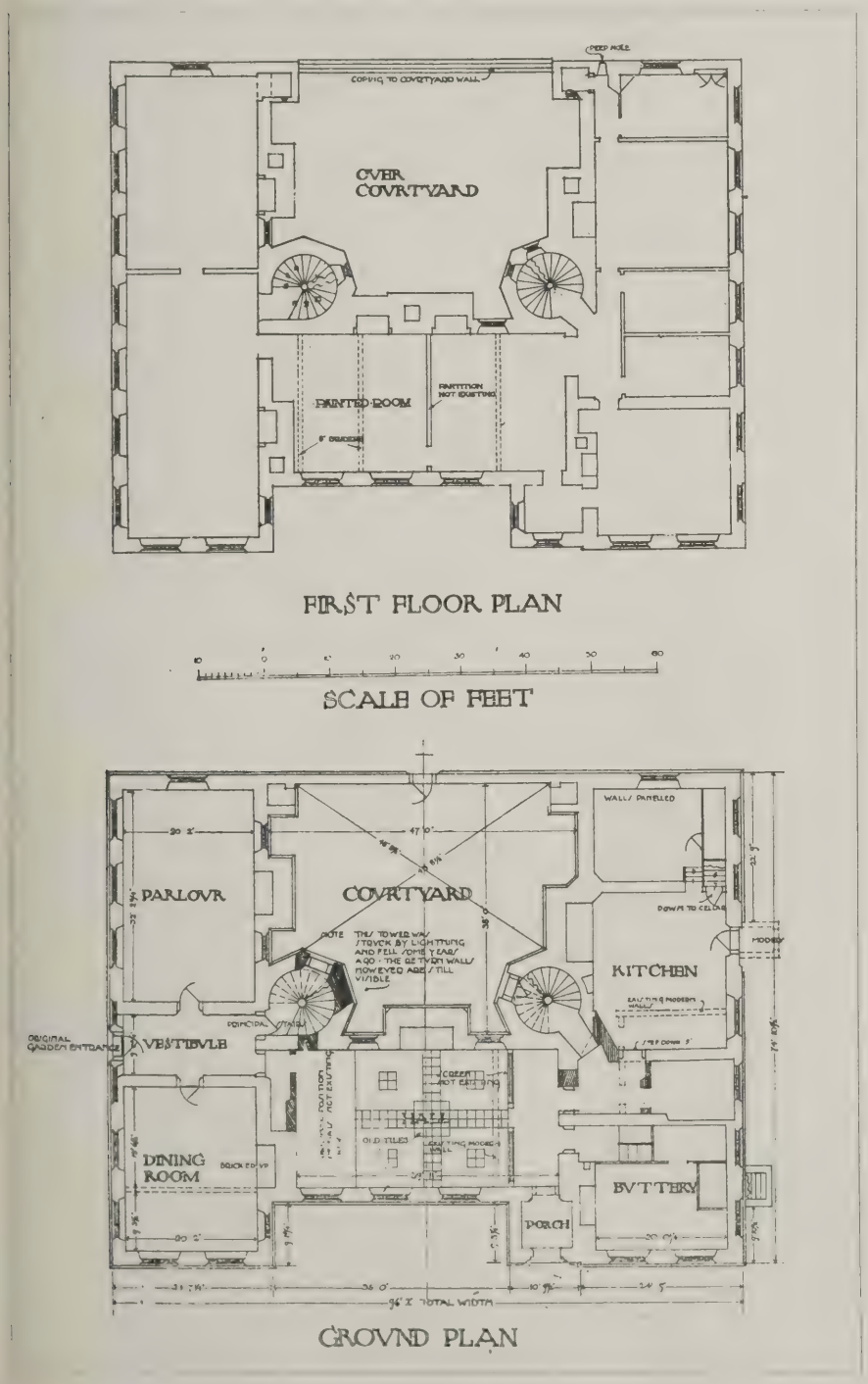
Sir Aston Webb and Son, Architects



This obelisk, which was lately unveiled by the Prince of Wales, has been erected at Dover to commemorate the work of the Dover Patrol during the war. A similar monument is to be erected at Cape Grisnez, France.

Eastbury Manor House, Barking

N this issue (see double-page plate) we publish a very fine drawing of part of the south front of Eastbury Manor ouse, Barking, by Mr. James Burford, connection with which the following otes are of interest. The date at which ie house was erected is not definitely iown. Tradition has it that the date 572 was cut in the brickwork of some art of the hall, but all trace of this inription has long since disappeared. r. Walter Godfrey offers some illuminatg comments upon the subject in a onograph that was published by the ondon Survey Committee in 1918. Apart from this date," he writes, which, if confirmed, would not necesrily be the date of the house, the building itself gives very little evidence of belonging to the Elizabethan period. It is true that the symmetrical disposition of the plan in the form of the letter H and the regular grouping of the gables show the influence of the Renaissance, and give a character in keeping with the domestic architecture of Elizabeth's reign. On the other hand, there is a striking absence of Renaissance details. The finials to the gables, the moulded chimney-stacks, the traceried pediment over the porch, and the stone chimney-pieces, all show late Gothic or Tudor forms. The two circular newel stairs suggest a date earlier than the introduction of the square Elizabethan staircases; and the arrangement of the hall is, of course, not inconsistent with its late mediæval appearance. In the absence of any documentary evidence it is perhaps enough to say that the house may possibly have been built before the dissolution of Barking Abbey, and that, if it should prove to have been the work of an owner after the Reformation, it shows an unusual conservatism and devotion to traditional features."



PLANS OF EASTBURY MANOR HOUSE, BARKING

The name of Eastbury, or Estbury, is found in records of a much earlier period than that to which the existing building apparently belongs. Sir William Denham is known to have held the property in 1545. After changing hands several times, it came ultimately into the possession of Clement Sisley, who, it is assumed, built the splendid mansion whose mutilated fabric we see to-day. It was about 1734 that the glory of the house began to decline; and for nearly two centuries its very existence has been in jeopardy. Never, however, had the building been more imminently in danger of demolition than it was immediately prior to the recent arrangement for its preservation.

The story of its progressive humiliation and decay is sad to read. W. H. Black, writing of Eastbury in 1834, says: "For almost a hundred years it hath been occupied by lessees, and thereby degraded into a farmhouse." Under later tenants "the house was neglected so much that ever since its ruin has been hastening." Black's account gives us some idea of the ruinous condition into which the house had then fallen. "At the time of the riots in 1780," he says, "the figures that stood in the garden wall were taken down . . . and thrown into the pond." Also "four of the chimneypieces were lately bought by the Rev. Thomas Fanshawe, who preserves them in the vicarage house at Parsloes in Dagenham parish. Moreover the fine oak floors have been taken up to repair the barns, timbers have been torn away for like purposes, and even one of the towers has been pulled down for its materials. Besides the kitchen, two rooms only are occupied by as many workmen and their wives . . ." Mr. Norman records that James Thorne, writing of the house in 1876, says it "had become almost a ruin, but has been restored by the present owner." It is in a sadly dilapidated condition that we find it to-day, its formerly magnificent apartments serving as stables for horses and a roosting-place for poultry. It is well to remember, however, that though the building has been desecrated and despoiled of nearly all its fine internal equipment, there are few important changes in its external appearance beyond those that are to be solely attributed to the passage of time. Here we find none of those structural alterations and additions that cheapen and disfigure so many of the old buildings in our national inheritance. Hence, we look to-day upon a structure whose general form is essentially the same as it was in the time of the Tudors.

The following interesting notes are extracted from Mr. Godfrey's admirable description: The main block of the house lies east and west, and comprises the hall and rooms above, the two wings projecting

slightly forwards to the north, and with greater depth to the south, where an enclosed courtyard is formed by the building on three sides and a high wall on the fourth. There are three stories, with a cellar under the west wing. On the north side a square three-storied porch adjoins the west wing, and two lofty staircase turrets, roughly octagonal without and circular within, are attached to the hall in the angles of the courtyard. There are three fine brick chimney-stacks in the courtyard, and others rise from the roofs, having well-designed moulded set-offs and grouped octagonal shafts with moulded caps and bases. The walls are built of red brick in English bond, and are of fine material and workmanship. Moulded bricks are used in the plinth, the jambs, mullions, transoms, and labels of the windows, the gables, the entrance porch, and the corbels and shafts of the chimney-stacks. A diagonal arrangement of bricks with dark headers is to be seen externally, and this, together with the size of the bricks (10 in. by 4½ in. by 2½ in.), agrees with the brickwork to be found in Essex in the early part of the sixteenth century. Another local feature is the cement covering to the brick windows, worked to represent quoins on either side (and to the stair-turrets), which conforms with a practice now recognized as having been widely in vogue in this county. The roofs are tiled. The majority of the windows on all floors are of six lights, three above and three below the transom, which is of brick, hollow-chamfered on both sides, as are also the jambs and mullions.

The courtyard to the south presents the most picturesque aspect of all the views of the house, the gables, lofty chimney-stacks, and the remaining staircase turret being grouped together to form a skyline of quiet, unusual beauty.

Of the outbuildings, two original barns are left, to the south-west of the main building. The larger stands some distance from the house and measures 95 ft. by 40 ft. It is divided into three aisles by massive oak uprights, and is five bays long, with a half-bay at each end and a porch to the east. Originally thatched, it is now roofed with corrugated iron, but most of the original timbers remain.

London "Toll" Exchange

In order to relieve the pressure on the London Trunk Exchange, a new telephone exchange is in course of erection and is expected to be opened towards the end of the summer. It will be situated near Fleet Street, and will be known as the London Toll Exchange. It has been designed so that the telephone traffic between London and the nearer provincial towns may be handled with greater dispatch, and the trunk lines between London and provincial towns which are within a distance of approximately twenty-five miles radius from the City will be transferred to the Toll Exchange from the London Trunk Exchange. The area served by the new exchange will contain about 300 exchanges and rural call offices, and will include the following towns: Aylesbury, Luton, Dunstable, St. Albans, Watford, Brentwood, Dorking, Leatherhead, Woking, Weybridge, Hertford, Ware, Maidenhead, Uxbridge, and Sevenoaks,

The Popularising of Architecture

We have received the following communication from Mr. E. M. Black, of Liverpool: I am one of the great multitude (I hope) of the semi-educated who are interested in architecture. I have read Mr. Voysey's article on the "Popularising of Architecture," and I gather that Mr. Manning Robertson has been writing on the same subject elsewhere. Their views are of great importance, but they are inside and educated views. They may be interested to hear a view of one of the general and semi-educated public. It has the merit of being quite independent of theirs although it agrees with theirs, and is only expressed later than theirs because I conceived it was no business of mine to leave my own shoemaking.

I think I am on the verge of architectural intelligence, but I cannot be sure. I am in this state of grace, however, that if I ever had money to spend on building I should choose my architect; I should choose the good workman, and I should be moved neither by propinquity of blood or neighbourhood.

Furthermore, having looked at pictures of many fine buildings in your own and other journals (for I haven't travelled greatly), I have now a sense in my bones of what is truly bad. I could never be deceived, were the band playing never so ravishingly, about the merit of, say, Southport Town Hall. At the same time I live in a provincial city, and the buildings of provincial cities are more rarely described and illustrated than those of the capitals. And so I come to my plea that more might and could be done by the architectural profession to educate us.

A really excellent and illuminating effort was made by Professor Reilly recently in "The Liverpool Daily Post" for my City of Liverpool—incomparably the most serviceable thing that the architectural profession has done for me. Professor Reilly in a series of articles went through the streets of Liverpool and pointed out to the semi-educated what was and what was not good in the architecture of the streets, although his method and treatment were more subtle than that summary would seem to indicate. What Professor Reilly did was to teach us how to look above the level of our noses; taught us in fact how to read the book that is in our hands every day. This is the difficulty to be overcome; that we don't know that above the top of the sign-boards the architecture usually begins. No doubt my defective education peeps out in such a statement, but let it pass.

I say that it was the most serviceable thing that has been done for me, for my daily life is lived in the streets through which he, a scholar and an artist, was good enough to stroll with me. Of course, I am interested in the domestic architecture of Bath, when I see it, but I'm greatly more interested in the good and bad architecture of Liverpool. And especially in the bad. There is too little made of bad architecture, but it is certainly a great joy to the semi-educated to know the really bad. There is a touch of paradox, and you may think of facetiousness about this point of view, but it is not meant in that way. I am profoundly convinced one can base a great deal of education on a study of t bad. What a field, then, is there in o provincial cities?

Let the R.I.B.A. do for all our provi cial cities what Professor Reilly did f Liverpool; let their architecture described in the press with the sar charm and discernment, and if possib let the process be carried further. If building is chosen for disapproval let be illustrated and let it be compared wi an illustration of what is fine, in the sar kind and of the same scale.

This is the gist and centre-point of t whole business of architectural educati for the semi-educated—comparison, co parison, comparison. It is good to see photograph of a fine and distinguish shop front, but it is ten times mo educative to me to see an illustration a bad shop front in Liverpool set alon side a fine shop front, which obvious achieves the same purpose at not mu greater expense. I think it is a j requiring the very greatest learnin judgment and skill, and may very like be a dream from some better land. B I'm certain it would do a great deal mo for the cultivation of architectural tas among plain men like myself than phot graphs of monumental buildings London.

And the thing is a business propositio I think I am probably one of many wh have glimmerings of architectural intel gence, but very little discriminatio We know where to get our standards some of the other arts, but somehow n in architecture. And the standards mu be exhibited by camparisons at our ov doors. And the chances are that t semi-educated have the money, and pe haps their hearts are in the right plac and an opportunity of learning abo what is good may help them to spe their money wisely and well.

Incorporated Church Buildin Society

At the last monthly meeting of t Incorporated Church Building Societ held at 7 Dean's Yard, Westminst Abbey, with the Hon. Sir E. P. Thesig K.C.B., in the chair, grants of £125 a £250 respectively were made towar building the first portion of the n churches of St. Andrew, Bedford, a St. Paul, Furzedown, Surrey. Towar rebuilding the church of St. John t Divine, Thorpe, near Halifax, £150 w granted, as well as the following su towards the repair of churches: St. Pa Camden Town, £40; St. Bartholome Dalston, £45; Christ Church, Great W ley, £50; St. James, Hambridge, Sor £50; St. John the Baptist, Llanroth Herefordshire, £25; and St. Nectan, Ha land, Devon, £150. Grants were a paid for works completed at St. Panc Old Church, £125; St. Mary, Unsto Sheffield, £105; St. Andrew, Stratfo Suffolk, £30; and St. Mark, Tollingt Park, £35. The sum of £328 was a paid towards small repairs to sixte other churches. The Society is entir dependent upon voluntary support, a the Committee earnestly appeals for su stantial assistance so that it may m adequately assist all the schemes church building and repair which co before it.

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Measured Drawings. 7.—Eastbury Mano

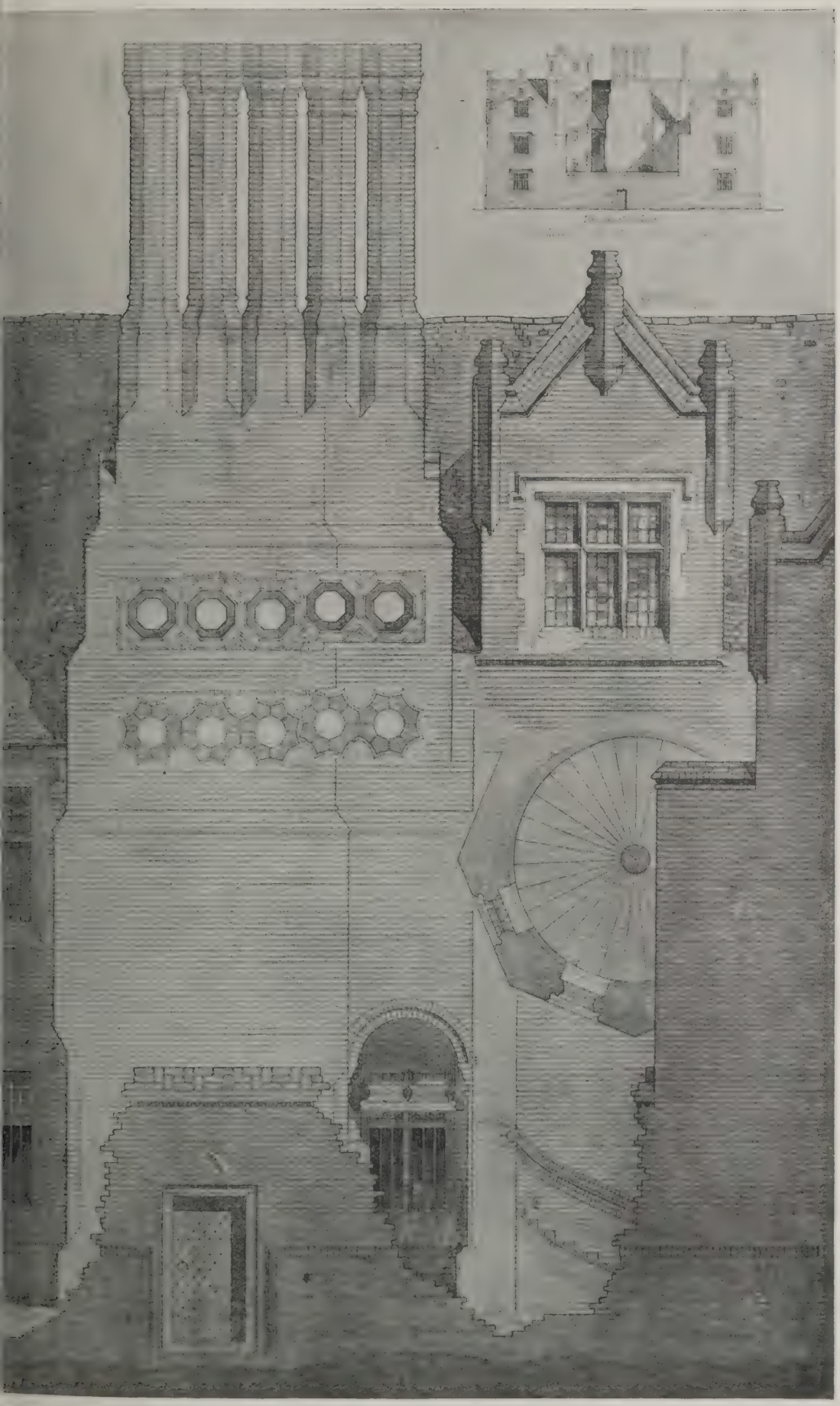
Measured and Drawn



Some time ago a scheme was formulated by the Society for the Protection of Ancient Buildings for the repair of
state of decay internally, though the exterior remains much in its original condition. The date of its building i
this inscription, however, has long since disappeared. The house is an extremely fine e

, Barking : Detail of Part of South Front

Burford, A.R.I.B.A.



ansion and its preservation in trust for the nation. Before this step was taken the house had fallen into a sad nown, but tradition has it that the date 1572 was cut in the brickwork of some part of the hall. All trace of domestic work, and is very well shown in Mr. Burford's beautifully rendered drawing.

OF THE

Character in Architecture*

By H. S. SILCOCK

CHARACTER expresses itself in architecture in three different forms: as the character of the nation, as ıat of the individual, and as that of ıe building itself. Of the first it may be ıid that it is generally an involuntary ɛpression, for as buildings are erected to eet the needs and satisfy the tastes of ıe people, they naturally express these ɛeds and tastes. The second type has ılly been possible since the time of the ɛalian Renaissance, when buildings were ɛst designed in their entirety by individuals. The third is, as will be shown, a sult more of a process than of separate forts, and is produced by the combination of efficient architects and a national adition.

National character is portrayed most early perhaps in the architecture of reece and Rome. The Greeks were a ıltured race, artistically refined, not ɛry practical; the Romans were energetic, ambitious, lovers of pleasure, and artistically of a much coarser type. While the Greeks were never thoroughly united, the Romans succeeded in creating a larger empire than the world had then seen, and preserving in this empire a comparative peace for many hundreds of years. The architecture of the two nations is precisely what one would expect. The Greeks in their culminating period produced buildings refined in every detail, perfect in themselves, but, as a rule, independent of their surroundings, and never on a large scale. Even the Acropolis at Athens, on which were erected, more or less simultaneously, the most perfect buildings that the Greeks produced, bears no evidence of a big connected idea. There is no attempt at a well-ordered plan; no one building bears any definite architectural relation to the others. The Romans on the other hand subordinated their individual buildings to the general effect of groups of buildings. Details were often coarse and over-profuse; but each building was but a factor of a larger scheme and contributed to a final impression of stately magnificence. The immense energy and organizing power of the Roman mind is best exemplified, perhaps, in the countless miles of aqueducts and roads of which the ruins are to be found in all parts of Europe.

The nation's characteristics, then, appear inevitably in its architecture. An architectural language is evolved side by side with a speaking language, and in this language the architects of that nation express themselves. The men of the Italian Renaissance revived their ancient tongue and used it with a varying degree of eloquence. From Brunelleschi the innovator, who perhaps stammered a little, and was at times stuck for a word, a great line of architects proceeds—Peruzzi, polished and refined; Michael Angelo, rather loud voiced, a little coarse occasionally, and not above an oath or two, but strong, nevertheless; Palladio and Vignola, learned gentlemen given a little too much to classical quotation. With all these men the architectural language of the Italian Renaissance, expressive of so much splendour, learning, and enthusiasm, was in daily use. Sanmichele and Sansovino had a slight

* This Essay has been placed first in a competition ɔmoted by the proprietors of this JOURNAL. Mr. Silcock, ıo receives an award of books, is a second-year student the Liverpool University School of Architecture.



INTERIOR OF LLOYDS BANK, DONCASTER. SYDNEY KITSON, F.R.I.B.A., ARCHITECT.

(*See also page* 175).

northern accent; even the unimportant and less successful architects used it—they knew no other; they dropped their aitches, as it were.

In this architectural language or national tradition the right-minded individual architect has his medium. He expresses his character by means of it. He may refine upon the tradition or degrade it; he may design strongly or weakly, simply or elaborately, as his character dictates; but his designs will inevitably affect the strength of the tradition. Just as a tradition is evolved by individual character, so is it destroyed through lack of it. Michael Angelo's force of character as expressed in his architecture undoubtedly influenced his successors for hundreds of years. His mannerisms were absorbed into the tradition. Peruzzi has not the strength of Michael Angelo, and compares with him in the same manner as the Greek with the Roman, with this difference: that both men were following the same tradition, and had at bottom the same ideals. It was a difference of dialect with them, not a difference of tongue.

The continuous following of a national tradition cannot fail to produce the third form of character, namely, architectural character. It is not sufficient that a building should be sound in proportion and detail; it should also appear what it is, and not appear what it is not. There should be no danger of confusing a museum, say, with a block of public offices. Its purpose and general plan should be more or less apparent from its elevation; it should bear a family resemblance to other museums. In fact, this resemblance quite naturally occurs in buildings designed to meet the same needs; the programme dictates certain conditions, and, if a uniformity of style be preserved, the resemblance occurs in their fulfilment. But there must be that uniformity. If one museum is Classic, another Gothic, another pseudo-Byzantine, another mid-Victorian "home-made," architectural character dies. A museum, or any other type of building, cannot show itself through a maze of individual tricks and eccentricities.

This architectural character, then, is mainly evolved by a sincerely national architecture. Buildings should, above all things, be in harmony with the spirit of the nation, and appear more as national productions than as individual designs. It seems to be the aim of nearly all our modern architects to show their individuality and character at all costs, whereas the ideal state of things would seem to be the complete subservience of the indidual to the general progress of the nation. Eighteenth-century houses always appear to have more quiet suitability and restfulness than the great majority of our present day buildings. They seem to have grown rather than been designed and built, and their happy proportion to have been rather a result of instinct and habit than of individual effort. It is a question, of course, as to how far age and mellowness contribute to their effect. But one thing is certain—they are the outcome of a tradition which bound the architecture of the country into one harmonious unity, which made crudity and ugliness almost an impossibility, and which expressed, even in buildings of no pretension or importance, a complete embodiment of the national character.

Restricted Housing

Sir A. Mond (Minister of Health) has informed Mr. Lambert in the House of Commons that, having regard to the limitation put on the number of houses under the Government housing scheme, it had become necessary to give preference to the claims of industrial areas.

In reply to Mr. T. Thomson, Sir A. Mond said, in addition to houses building under the scheme of subsidy to private builders, there were 76,000 houses now under construction by local authorities and public utility societies, and about 50,000 additional houses contracted for but not even commenced. There was here ample field for the employment of surplus labour, and there was no point in multilpying approvals for further houses, to say nothing of the effect of such a policy on prices. With regard to 440 plasterers who were said to be unemployed he could only state that at the date of the last housing return no fewer than 1,922 plasterers were wanted for housing schemes actually in hand.

Latest List of New Inventions

Latest Patent Applications.

19380.—Moran, D.—Plaster slabs. July 19th.

19823.—Pittaway, G. H.–Concrete Walls. July 23.

19697.—Weir, E.—Instruments for computation of constructional members in reinforced-concrete work. July 22nd.

19314.—Willgoose, I.—Casting hollow concrete walls. July 18th.

Specifications Published.

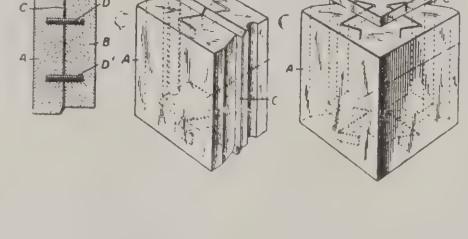
115227.—Bessonneau, J. P. B., and Besnard, C. H.—Floors and roofs.

166360.—King, P. S.—Means for supporting concrete floors in course of construction.

166402.—Clifton, W. E., and Ewart, J. S.—Construction of concrete slab buildings.

Abstract Published.

164125.—Bricks.—Smith, M. M., Harpsden Wood House, Henley-on-Thames.—Building-blocks, beams, jambs, lintels, etc., are formed of two thicknesses of concrete A B, with a sheet of waterproof material C interposed during the casting operation, metal ties passing through the waterproofing to hold the block together. The ties may comprise screw-bolts D^1, Fig. 2, or Z-bar connectors, Figs. 1 and 4, the waterproofing sheets in this case being laid in sections with overlapping joints, and the metal ties passing through the joints. The front and rear blocks may be staggered at top and bottom to provided overlapping joints of the wat proofing, and the sides of t blocks may be recessed a bevelled so as to allow t lateral edges of the waterpro ing to overlap. Angle-bloc are shown in Fig. 4. Specifi tion 154,392 is referred to.



The above particulars are specially prepared by Mes Rayner & Co., Regd. Patent Agents, of 5 Chancery La London, from whom readers of this journal may obt all information free relating to patents, trade marks, designs. Messrs. Rayner & Co. will obtain prin copies of the published specifications and forward post free for the sum of 1/- each.

Building Materials, etc. for Trinidad

His Majesty's Trade Commissioner Trinidad reports to the Department Overseas Trade that he has received inquiry for catalogues and current pri of steel indented bars and concr specialities, such as stirrups, column enforcements and expanded metal.

Similar particulars are required regard to sanitary goods, in connect with which it is suggested that quotati should be sent for complete lavatory a water-closet outfits which, to comp with American supplies, should be che but efficient.

The inquirers also intend to estab a drawing office and are therefore anxi to obtain the catalogues of firms able supply drawing-office equipment a paper, blue print, chemicals and apparat

The firm have been obliged to obt from the United States most of material required for a two-story c crete building which they are erecti but they are now anxious to ascert how far such supplies can be obtai from the United Kingdom at competit prices in view of the comparatively la supplies which are likely to be requi in Trinidad in the near future. T Port of Spain City Council has under c sideration the erection of 1,000 cotta at Woodbrook, and the number of C toms warehouses is to be increased in near future.

The name and address of the fi referred to may be obtained by Uni Kingdom manufacturers and export on application to the Department.

The Homefinder

There is comfort in the very title this newspaper, the August number which has just reached us. It is a b claim to make these days, but a gla through the contents seems to offer ju fication. Arranged in orderly seque under their different districts are parti lars of available properties of ev description, to be let or sold furnish and, more wonderful still, free of encumbrances. In addition to this valuable register, "The Homefind contains various articles of topical inte dealing with different aspects of eternal homefinding problem. Of parti lar interest is an illuminating account the developments taking place in Met land, of which some account was gi in these columns last week, and a desc tive account of West country attracti will appeal to all who meditate hou hunting in this direction.

The Homefinder. Price 1/-. Published by H finders, 74 Victoria Street, S.W. 1.

Current Architecture. 104.—Lloyds Bank, Doncaster

Sydney Kitson, F.R.I.B.A., Architect



This bank has lately been completed from the designs of Mr. Sydney Kitson, F.R.I.B.A. The front elevation is constructed of Portland stone. Messrs. Harold Arnold and Son, Ltd., of Doncaster, were the contractors.

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Concrete as a Vehicle for Architectural Expression

By THOMAS MOORE
(*Member American Concrete Institute*)

THE statement has often been made that concrete has no artistic possibilities—an opinion that seems to be more current in England than in the United States. It is not generally known, however, that the three principal factors in the problem of appearance—form, colour, and texture—are being surely mastered, and that already, indeed, reinforced concrete can be accepted as a fitting medium for the expression of academic design.

One of the pioneers in the movement is Mr. J. J. Earley, of Washington; a sculptor who has devoted himself to the production of what may be termed real concrete. This concrete is not an attempt to imitate any sort of stone; it acts like concrete, and looks like concrete, and by original methods and processes all its real natural beauty is brought out.

The main feature of Mr. Earley's work is his method of surface treatment. There are many special processes required in mixing and placing that must be correctly followed out before a concrete mass can be produced that will allow of the successful employment of this treatment.

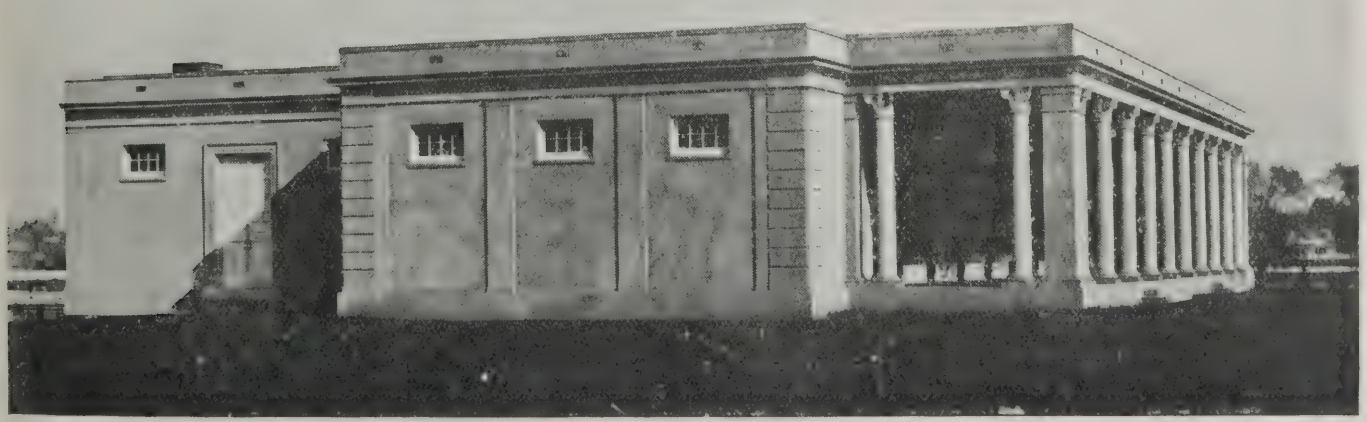
A striking example of surface-treated concrete was produced by Mr. Earley in 1916 in a retaining wall on the west side of Meridan Hill Park, Washington. The forms were removed while the concrete was yet green, and the surfaces brushed until the aggregate was exposed. In this treatment the colour effect, instead of being a cement grey, became a cream colour, the surface showing the clean pebbles in their natural colour, which varied from white to yellow and light brown.

That reinforced concrete can be made to meet the requirements of form is shown in the Field House at East Potomac Park, Washington (Fig. 2). The architect detailed this work without restriction. No concession was made in the design to the material, but every requirement of form was insisted upon. The columns, seen on the right, the corners which run around the building, are precast concrete, cast in the shop and set in place. The reinforced concrete foundation is finished exactly the same as the rest of the building. The walls are terra-cotta tile with a one-inch concrete finish applied with trowels. The quoins on the corners were formed with strips; likewise the pilasters next to them.

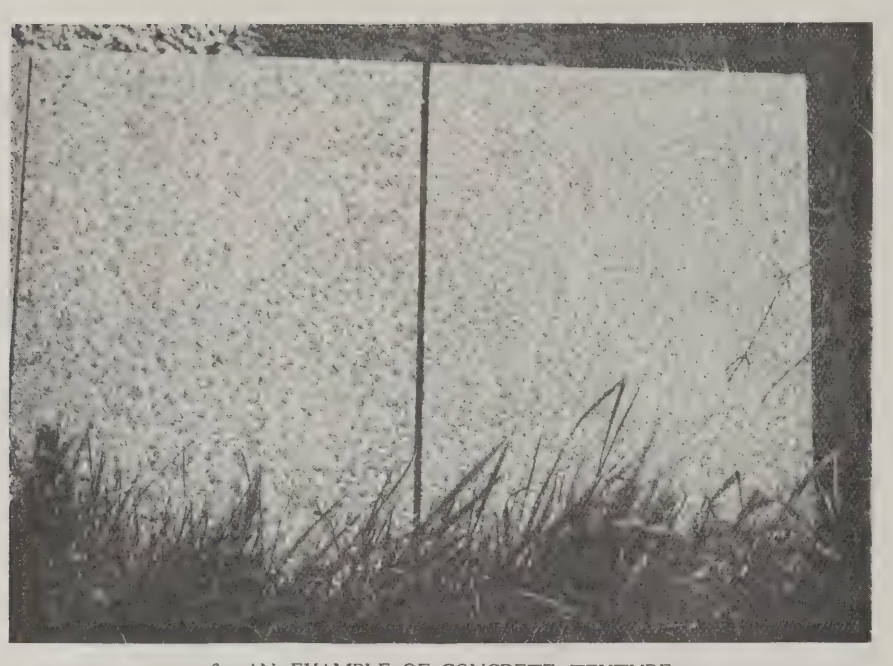


1.—PRE-CAST APPLIED WORK ON RESIDENCE AT MIAMI, FLORIDA.

In Fig. 4 is shown the concrete work produced by Mr. Earley in the vestibule of the Britten-Browne residence, Washington, D.C. Notice how in interior



2.—FIELD HOUSE, EAST POTOMAC PARK, WASHINGTON, SHOWING THE ARCHITECTURAL POSSIBILITIES OF REINFORCED CONCRETE.



3.—AN EXAMPLE OF CONCRETE TEXTURE.

work the artist achieves a soft and friendly appearance in the concrete.

Fig. 3 shows the texture of gate-posts at the entrance to an estate in Washington. The scale of the texture may be indicated by imagining the diameter of the largest particles to be one-half inch. The general colour tone was 3 YR 6/4 which indicated a yellow-red three degrees removed from yellow, of one degree lighter than middle value, and of a chromatic strength one degree below middle strength. The spots in the photograph were of similar value middle chrome green, used for the purpose of reducing the warmth of the other colours because of the predominance of yellow-green in the natural background.

Another leader in the movement for the production of a concrete that will lend itself to the expression of highly ornamental design is Mr. John B. Orr, of Miami, Florida. The Flagler monument, which is 18 ft. high (p. 180), is an example of Mr. Orr's cut artificial stone, known as "Orrolith" cut stone. It is cut and finished the same as natural stone. These large figures are cut out of solid blocks of manufactured stone. In some cases the cast for Orrolith stone is made three-eighths of an inch over size and then dressed down by carvers. It can readily be imagined how perfect in texture this concrete must be to allow of the proper use of the chisel. Fig. 1 shows an example of Mr. Orr's pre-cast and applied work on the John Bindley residence, Miami, Florida.

Mr. Orr is achieving a considerable reputation for colour effects in stucco. Many visitors to Miami have been charmed with the old Spanish weathered effects obtained by the skilful use of colour in this type of finish.

The Arbuckle building in Brooklyn, N.Y. (Fig. 5), designed by Mr. William Higginson, of New York, is a good example of architectural development in concrete, especially in the treatment of cornices at the fourth and tenth stories, and the brackets and sill course at the ninth story. The ornamentation of the main entrance is also concrete.

There are a few shops now producing pre-cast work that is being employed in large operations. It is not unusual now to see large hotel and theatre buildings where this material is used from the base up. Some of these shops are producing very fine imitations of granite that require very close inspection by an expert before any difference from the quarried material can be detected. Most of the shops which use a colour pigment in the production of pre-cast work will, however, require more practice before they will be able completely to control their effects.

Correspondence

Unification of Architects

To the Editors of THE ARCHITECTS' JOURNAL.

SIRS,—Having read a few letters on the above subject, I should like to point out that I applied for membership with a South Wales society. After replying to all the correspondence satisfactorily, and as one might say being buffeted from pillar to post for twelve months, I received information that owing to my not knowing and being known to any member of this particular branch, they would be unable to admit me.

Surely there should be a clause to cover this obstacle, providing everything else is satisfactory. I consider anyone with thirty years' training in the hard school of practical experience is quite capable of being admitted to any society. Or are there exceptions? And then we hear a great outcry for Unification and Registration of Architects! A. M. J.



4.—CONCRETE VESTIBULE OF A HOUSE AT WASHINGTON.



5.—THE ARBUCKLE BUILDING, BROOKLYN, N.Y.—AN EXAMPLE OF DESIGN IN REINFORCED CONCRETE. WILLIAM HIGGINSON, ARCHITECT.

Law Report

Modernizing a Tudor Farm House

Walker v. Harper.

July 25. Official Referees Court.
Before Sir Francis Newbolt.

In this action the treatment of an old Tudor house, called D'Arcey Hall, at Tolleshunt, five miles from Maldon, in Essex, by the tenant, Mr. Francis Clements Harper, in his effort to restore it to its ancient condition, was the subject of a claim for dilapidations in breach of agreement of tenancy by the letting tenant, Mr. John Dimack Walker, an Essex farmer.

Mr. E. J. Jones was counsel for plaintiff, and defendant was represented by Mr. Maddocks.

Mr. Jones, in stating plaintiff's case, said the house, which was an interesting old one, had been for some years occupied, together with the farm of between 200 and 300 acres, by the plaintiff, who was a farmer, and in 1916 the defendant was minded to become tenant of the house. A difficulty arose in connection with the state of the house, and the landlord, Mr. Eve, offered Mr. Harper £150 towards the cost of doing what was necessary to the house. Upon that Mr. Harper became tenant of the house and a piece of pasture and adjoining, and spent a considerable amount of money in alterations and improvements, amounting, it was said, to over £800. The letting was for four years at £60 a year, and the complaint was that Mr. Harper had altered all the internal arrangements of the house in his effort to restore it to the Tudor period. It was complained that he had put in a bath and taken it away when he left; that he had taken out the Victorian stoves and replaced them with "dogs," which he had taken away, leaving the vacant chimney gaps; that he had papered the walls with unsightly papers, and had made other alterations in the condition of the house which, it was claimed by the plaintiff, would take £450 to restore to the condition in which it was when defendant took possession.

The plaintiff said that he rented the house and farm from Mr. Eve at £250 a year, and had power to sublet. He held on a three years' agreement from Michaelmas 1915, but let the house, stables, garden, and piece of meadow land to the defendant for four years at £60 a year.

The defendant said that he had spent £800 on the restoration of the house, and had left it in a very much better condition than it was in when he took it. It was then in a dilapidated state, and was now much more valuable property, and had only removed such articles as he had been advised were not landlord's fixtures. He denied, in cross-examination, that he had altered the house into a Tudor palace, but had left it still a farmhouse in better condition than when he took it. It was then in such a condition of decay that it would not have stood long without structural repairs. He also said that he had spent much money in putting it into a proper sanitary condition.

At the close of the defendant's evidence a consultation took place between the parties, resulting in a settlement, the terms of which were not disclosed but with which Mr. Jones (plaintiff's counsel) expressed satisfaction.

R.I.B.A. Summer Examination Results.

Following are the results of the Summer Examinations of the R.I.B.A.

FINAL AND SPECIAL EXAMINATIONS.

Mr. R. W. Ferguson.
J. M. D. Henderson.
L. W. Ingham.
J. A. Kerr.
C. M. Master.
Mr. D. J. G. Plumley.
F. I. Tellery.
F. Wilkinson.
J. Williamson.

The Ashpitel Prize (£10 in books) has been awarded to Mr. L. W. Ingham, and a mark of distinction has been awarded to Mr. F. I. Tellery for his Thesis. Twelve candidates failed to satisfy the Examiners and have been relegated to their studies.

SPECIAL WAR EXAMINATION.

Mr. E. H. Adams.
E. J. Armstrong.
H. G. Atkin-Berry.
A. C. S. Auld.
C. H. Bailey.
C. Barber.
R. R. Barnett.
J. Batty.
A. E. Batzer.
W. C. Bickerton.
J. Blackett.
A. Blomfield.
M. Botting.
T. S. Bowes.
K. A. Braden.
G. S. Bridgman.
G. L. Broadbent.
K. H. Brown.
L. J. Brown.
G. A. Bryan.
H. M. R. Burgess.
C. G. Butler.
F. G. M. Butlin.
J. Campbell.
C. S. Carter.
H. B. Challen.
E. U. Channon.
E. S. Charlton.
W. A. Cheers.
F. A. Child.
R. G. Clark.
O. H. Collins.
R. A. Cooksey.
C. J. Crossman.
T. S. Darbyshire.
I. Davies.
G. R. Dawbarn.
H. A. Dawson.
F. M. Dean.
J. Donald.
F. M. Drake.
A. H. Durand.
J. M. Easton.
A. E. Eberlin.
C. J. Eprile.
G. H. Fawcett.
J. H. Forshaw.
E. Frear.
J. A. Frew.
G. A. Gale.
C. R. Gallie.
H. Gresswell.
G. T. Harman.
Mr. M. R. H. Harris.
J. L. Harvey.
W. F. Hedges.
T. E. Heysham
O. Hill.
N. Hinwood.
P. T. Hiorns.
H. E. Horth.
H. W. Humphrey.
S. Hunt.
S. Hyde.
R. Jackson.
F. L. Johnson.
H. Jones.
H. A. J. Lamb.
C. Leckenby.
J. Logan.
W. R. J. Mann
B. K. O. Mathews.
P. V. E. Mauger.
H A. Mealand.
J. A. Meikle.
J. B. Mendham.
G. A. Mitchell.
K. D. P. Murray.
C. W. C. Needham.
L. Pickford.
S. Pinfold.
C. T. Pledge.
D. S. Prosser.
N. D. Quick.
T. Ridge.
F. G. Sharp.
E. Sheppard.
C. G. Skinner.
W. Small.
A. Snell.
C. G. Soutar.
C. H. Stableford.
A. Stocker.
F. R. Streeter.
C Sunderland.
M. N. Sykes.
J. B. Symonds.
W. J. Taylor.
C. R. Towle.
R. C. White.
L. J. Williams.
K. M. Winch.
A. E. Wiseman.
J. Yeats
C. J. M. Young.
F. N. Young.

Sixteen candidates failed to satisfy the examiners.

INTERMEDIATE EXAMINATION.

The following candidates have passed the Intermediate Examination held in London and Manchester, and are eligible for registration as Students.

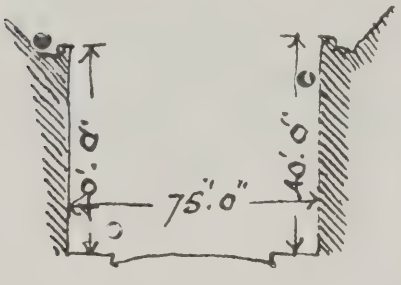
Mr. H. W. Chester.
E. H. Button.
H. Conolly.
C. F. M. Keay.
C. C. G. Osborne.
F. J. Lander.
W. J. Werry.
J. H. Parker.
Mr. H. R. Steele.
J. C. P. Cork.
S. J. Kemp, M.M.
E. Watson.
J. A. Metcalfe.
H. Fieldsend.
F. H. Wrigley.
R. G. Easdale.

Thirty candidates failed to satisfy the examiners and have been relegated to their studies.

R.I.B.A. Final : Alternative Problems in Design

Subject LVIII.

(*a*) Across a roadway in an important town, 15 yds. wide between the curbs, with pavements 15 ft. on either side in a street, it is proposed to erect a (temporary) Triumphal Arch, in honour of the King, who is to pass that way for some commemorative occasion. The materials used are to be wood for the structure and plaster for the decoration. Colour may be used. Show the method



of construction, as well as the finished effect.

Drawings : ½-inch scale, with key plan and elevation to ⅛-inch scale.

(*b*) A Hostel for 50 Women Students in connection with a University College in a provincial town. Common room, dining-room, library, two small parlours (one for the superintendent), cubicle bedrooms, kitchen, and accommodation for staff.

Drawings : ⅛-inch scale; ½-inch details.

Subject LIX.

(*a*) A City Square, 150 yds. W. to E. and 75 yds. N. to S., is to be laid out as a garden—to be turfed and planted with trees and shrubs—the west side to have a long stone colonnaded shelter with seats : provide a drinking-fountain. The site was at one time a reservoir, and the general area is, therefore, 3 ft. lower than the streets. The square is surrounded by streets 50 ft. wide. Those on the east and west run through the square. Lay-out to 32 ft. to an inch. Colonnade to ⅛-in. and ½-in. scale.

(*b*) A Meteorological Station at the seaside, standing near the base of a pier and comprising two offices, a tower for anemometer and a seamen's club (not residential), with bureau of information as to weather, shipping, etc., which is to be connected, by wire, with a wireless station.

Drawings : ⅛-inch scale and ½-inch details, with block plan to $\frac{1}{32}$-inch scale, showing relation to pier.

Subject LX.

(*a*) A Local Museum is to be built in a country town—there are no antiquities to be housed—museum to contain collections of the fauna (stuffed) and flora (painted) and insects in cabinets; and there is to be a library to hold the books dealing with the locality. Spaces in the library for portraits of local celebrities must be taken into account.

Drawings : ⅛-inch scale with ½-inch scale details, including a roof section.

(*b*) A Village Public Hall set back 5 yds. from the high road, to seat 200, capable of being used also for dramatic and cinematographic entertainments. Connected with this is to be a matron's meeting-room : kitchen to be used as a room for instruction in cookery; scullery and other offices; boys' workshop to hold two carpenter's benches and two lathes; caretaker's residence; heating by radiators, lighting and cooking by gas.

Drawings : ⅛-inch scale and ½-inch details.

Dates for Submission of Designs in 1921–22.

	Subj. LVIII.	Subj. LIX.	Subj. LX.
United Kingdom	31st Aug.	31st Oct.	31st Dec.
Johannesburg	31st Oct.	31st Dec.	28th Feb.
Melbourne	30th Nov.	31st Jan.	31st Mar.
Sydney	30th Nov.	31st Jan.	31st Mar.
Toronto	30th Sept.	30th Nov.	31st Jan.

Trade and Craft

Gold Medal for Winget, Ltd.

Messrs. Winget, Limited, whose concrete block-making plant has been one of the features of the International Exhibition of Architecture and Housing held this summer at Ghent, have received the Gold Medal of the Belgian Crown Prince —the highest award at the exhibition.

New District Engineer for James Allan Senr. and Son.

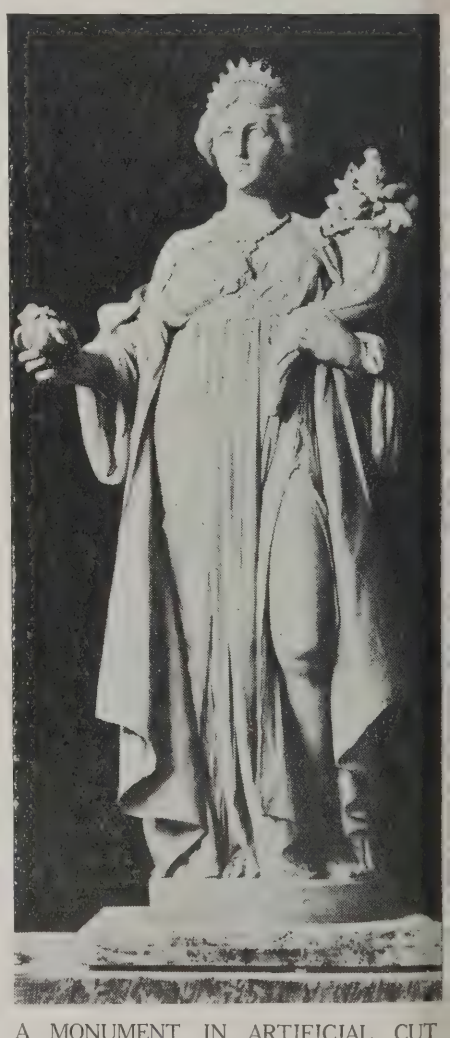
Messrs. James Allan Senr. and Son, Ltd., of Glasgow, structural engineers and architectural ironfounders, have appointed Mr. Thomas McGill, A.M.I.Mech.E., of 37 Isabella Street, Old Trafford, Manchester, as district engineer and representative for Lancashire and Yorkshire areas. Mr. McGill for the past eight years has been engaged as part-time evening-class lecturer in structural engineering at the Municipal College of Technology, Manchester, and has contributed articles on this subject to THE ARCHITECTS' JOURNAL.

"The Sprinkler Bulletin."

We have received two copies of "The Sprinkler Bulletin," each of which is full of instructive information concerning the fire-preventive work of the Grinnell sprinklers. One of the copies contains a particularly interesting article on the practical tests carried out in a miniature garage at Walthamstow, erected by the London General Omnibus Company to their own design, with a view to finding out whether sprinkler protection might be relied upon to deal with a fire in garages with petrol alight on the floor beneath the 'buses. The successful results obtained during the tests were so greatly appreciated by the London General Omnibus Company that they have since had practically all their omnibus garages and chassis works protected by Grinnell sprinklers, as well as the new centralization depot now nearing completion at Chiswick. The quarterly reports of fires in the United Kingdom, the Continent, and the Colonies, and the striking particulars of fires in and around London, in Tasmania, Australia, Alexandria, and Victoria, pay a striking testimony to the value of the Grinnell sprinkler.

China and Electrical Materials.

A marked development in the use of electrical machinery occurred during 1920. The demand for electric lighting in most cities altogether exceeded the supply, and existing plants were heavily overloaded, with the result that influential merchants and shopkeepers in the various cities purchased small electric-lighting sets for the lighting of their own shops and, perhaps, two or three adjacent premises. These small sets were supplied almost entirely from America. There is a tendency in the more important establishments to install larger units, and while a few years ago 200 and 400 kilowatts were considered large, it is now quite common to install units of 1,000 kilowatts and upwards, and it is reported that a large number of orders has been placed for privately-owned power-stations for the purpose of supplying power to cotton and flour mills. This increase in the amount of machinery installed has, of course, stimulated the demand for electrical accessories, fittings, and lamps. Japan has captured the lion's share of the business in accessories, especially in the cheaper kinds; America has the largest share of the better-class fitting and glassware, while in lamps the market is practically monopolized by the large factories in Shanghai and by Dutch and Japanese manufacturers. The importation of electrical materials into China amounted to 2.3 million taels in 1913, 5 millions in 1919, and 6.3 millions in 1920.



A MONUMENT IN ARTIFICIAL CUT STONE.

(*See page* 178)

The Week's News

Housing at Deptford.

£50,000 is being borrowed by the ›rough Council for housing.

War Memorial for Aberystwyth.

The T.C. have approved a proposal to ›ct a war memorial in the Castle ›ounds at a cost of about £4,400.

Gift for Worcester.

Mr. C. W. Dyson Perrins has given o,000 to build a science department the Worcester Royal Grammar School.

Housing at Islington.

The Borough Council have decided to ›ct fourteen flats at Crouch Hill at a ›t of £12,995.

Submarine Service Memorial.

A memorial to officers and men who t their lives in the submarine service the war is to be erected on the Victoria nbankment opposite Temple Gardens.

Northampton Riverside Promenade.

Northampton T.C. has approved a ›eme for widening the River Nene and ›nstructing a riverside promenade 30 ft. ›de.

The late Mr. Flanagan.

Mr. Patrick Flanagan, of 62 Hopwood ›eet, Hull, for many years general ›retary of the National Union of ilding Trades Employees, left £1,538.

New Church for Ilkeston.

The foundation stone has been laid of ›ew Catholic church at Ilkeston. Mr. arles W. Hunt, A.R.I.B.A., is the ›hitect.

w Millais Portrait for the National Gallery.

The attractive portrait by Millais of his ›nd, Mrs. Jopling (Mrs. Jopling-Rowe), ›nted in 1879, has been presented to the ›tional Gallery by Mr. Lindsey Jopling, ›l is now hung in Room XXII.

Kensington War Memorial.

Princess Louise Duchess of Argyll has ›t £500, her second donation, to the local ›r Memorial Fund. It is proposed to ›ct a monument and to secure a piece land in North Kensington for playing ›ds.

L.C.C. and City Street Widening.

The L.C.C. has refused to contribute ›,500, one-half of the cost of widening the City Corporation of Threadneedle ›eet between Old Broad Street and ›hopsgate.

Dickens Bust for Embankment.

Mr. May, a Hampstead sculptor, has ›n for many months working on a ›morial to Dickens, and it is proposed ›place it on the Thames Embankment ›t year. Round the pedestal on which ›ust of Dickens will rest will be a special of scenes in relief from his greatest ›els.

Yarmouth Yacht Station Extension.

An improvement and considerable ex›sion of Yarmouth yacht station is ›templated. It is the daily rendezvous ‹ great many craft on their way to or ›n the Broads and their streams.

Housing Development in Doncaster.

Wheatley Hills, Doncaster, have been sold to a building syndicate for the erection of bungalows and villa residences. The Corporation of Doncaster have already passed plans for 100 houses.

The Defender of Ladysmith.

The equestrian statue of the late Sir George White, the heroic defender of Ladysmith, is practically finished, and steps will shortly be taken to erect it in position.

Sir Edwin Lutyens in a New Rôle.

The scenery for the forthcoming production of "Quality Street" at the Haymarket is being designed by Sir Edwin Lutyens, R.A., who will also design the furniture, which is being specially made.

Death of an Ipswich Architect.

We regret to announce the death of Mr. Edward F. Bisshop, of Ipswich, architect. Mr. Bisshop carried out extensive alterations to Cockfield Hall, and designed many Suffolk country residences, churches, and schools.

Building Material.

Sir A. Mond, Minister of Health, stated in the House of Commons that the department for building material supply would be brought to an end as soon as its business could be wound up; the bulk, he hoped, at the end of the financial year.

New Gift to Nottingham.

Sir Jesse Boot has given a large piece of land on the side of the River Trent and a sum of £100,000 towards the cost of erecting buildings for the proposed East Midlands University. The ultimate expenditure on the new buildings will be £250,000.

Architectural Practice.

Mr. Thomas Sladdin, F.R.I.B.A., of 9 Library Place, Jersey, C.I., has taken into partnership Mr. Percival Bown, F.R.I.B.A., and Mr. Leslie Lawson de Ste Croix. The style of the firm will be Sladdin and Bown, architects and surveyors, the address remaining as above.

Huts in the Embankment Gardens.

Lieut.-Colonel Sir J. Gilmour has stated in the House of Commons that arrangements were being made to permit of the vacation of the buildings in the gardens on the Thames Embankment at the end of this year, in order that the gardens might be restored to the public before next summer.

General Housing Memoranda.

The Council of the Society of Architects has confirmed the action of its representatives in agreeing on behalf of the Society the terms of General Housing Memoranda 51d and 52, in conference with representatives of the Councils of the R.I.B.A. and the Scottish Institute of Architects, and the Ministry of Health.

The New Palace at Douglas.

The Governor of the Isle of Man has formally opened the new Palace at Douglas. The former Palace was destroyed by fire, and the new one has been erected to the designs of Messrs. George Kay and Sons, of Douglas, architects. The dancing floor is nearly 200 ft. long by 100 ft. wide.

Chamberlain Memorial Park.

Mr. and the Hon. Mrs. Anstruther Gough-Calthorpe have offered four and three-quarter acres of land at the corner of Ladywood and Monument Roads, Birmingham, for use as a public park, expressing a wish that it may be associated with the memory of the late Mr. Joseph Chamberlain.

Edgehill College.

Memorial stones have been laid in connection with the rebuilding of Edgehill Girls' College, Bideford, which is now in progress. The work is being carried out by a local firm, under the direction of Mr. F. Rountree, F.R.I.B.A., an acknowledged expert in the matter of modern school building.

Church House Improvements.

A committee has been formed in order to consider a plan for the completion of Church House, Westminster, and to improve the existing premises. Among the improvements contemplated are the establishment of a Church House restaurant and a change in the library, which now contains over 20,000 books distributed in several rooms

Society of Architects' Atelier.

Mr. John W. Simpson, PP.R.I.B.A., has accepted the chairmanship of the Beaux-Arts Committee, under whose auspices the first Atelier of Architecture was founded. This Atelier is one of the Royal Academy Ateliers. There are at present a few vacancies, and those who desire further information should apply, preferably personally, to the Patron, M. Chaures, at the Atelier, or to the Hon. Secretary, at 28 Bedford Square, W.C.1.

Cost of Building in the Federated Malay States.

Mr. A. B. Voules, Acting British Resident of the State of Negri Sembilan (one of the Federated Malay States), in his annual report says: "In common with other States, Negri Sembilan has suffered severely from the shortage of house accommodation for European officers and clerks. The rise in the cost of house building has been phenomenal. Quarters which in 1912 cost $15,000 (£1,750) can now only be built at a cost of $48,000 (£5,250). There are, however, signs that costs are decreasing."

King Edward Memorial.

With the recent conveyance from the King Edward Memorial Committee to the London County Council of the site at Shadwell for a public park, the second part of the scheme for perpetuating the memory of King Edward VII is on the way to completion. The scheme of the Memorial Committee also includes the provision of a sculptured memorial of

his late Majesty, which will be executed by Sir Bertram Mackennal, A.R.A., and placed on a suitable site in the park. The work of laying out the park will be performed by the London County Council.

Society of Architects' Victory Scholarship.

An exhibition of the designs submitted in connection with the 1921 Victory Scholarship will be held at the Society of Architects, 28 Bedford Square, W.C.1, from August 15, 1921, *et seq.* Any person interested is invited to inspect the drawings.

Society of Architects' Membership (2b) Examination.

The next examination to qualify for candidature for membership of the Society will be held in October next in London and other centres. Entries close on September 1. Candidates who take the whole examination are eligible to compete for awards of the total value of over £180. The examination fee for Licentiates and Students of the Society is £2 2s. and for other candidates £4 4s. A syllabus and entry form may be obtained from the Secretary at 28 Bedford Square, W.C.1.

Housing Progress in Scotland.

The following figures show the progress that has been made in State-aided housing schemes in Scotland to July 15, 1921:—Permanent houses completed, 2125; temporary houses completed, 539; reconstruction houses completed, 67; houses built under the Private subsidy scheme, 671. Total 3,402. There are in addition 12,535 houses under construction, of which 1,638 are being built by private persons with the aid of the Government subsidy. The total amount paid by the Scottish Board of Health in respect of the 671 houses built under the Private subsidy scheme is £163,070.

Victoria and Albert Museum.

The Victoria and Albert Museum has acquired the valuable bedstead in black and gold lacquer which formed one of the most interesting features of the recent sale of the Duke of Beaufort's furniture from Badminton. For the present it has been placed in Room 57, in which also David Garrick's bedroom furniture is exhibited. The Department of Woodwork is being re-arranged to give more space especially to the English furniture. The dolls' houses and miniature models of old furniture (which date back upwards of two centuries) have now been assembled temporarily in the west hall.

Paris Landmarks Going.

With an eye to the probability of the usual flooding of the Seine next winter, the authorities have decided to replace the old bridge of La Tournelle by a new bridge with one arch, in order that the river may flow more freely through the city. For some time past it has been suggested that other bridges should be altered with the same object. Massively built in the reign of Louis XIV, the piles of La Tournelle for a long time resisted all attempts to pull them down, but the work has now been accomplished by means of dynamite. The great wheel which faces the Trocadero on the other side of the river, sometimes known as the "Spider's Web," is at length being gradually pulled down. The first attempt at this difficult operation, which was thought to be fraught with great danger owing to the huge size of the wheel, was abandoned as hopeless. The disappearance of the great wheel, which in its dilapidated condition was fast becoming an eyesore, will be less regretted than that of one of the oldest Paris bridges.

Architectural and Building Exhibition, Liège.

An exhibition organized by the Liège Association of Architects will be held at the Palais des Beaux-Arts Liège, Belgium during August and September next. The exhibition will be divided into three sections, the first being strictly architectural. Members of the Liège Association and their guests, the architects of Allied Countries, will exhibit works. The second part of the exhibition will deal with ancient and modern furniture executed by Liège cabinet-makers, and the third with new methods of building construction. Inquiries can be addressed to "Secretariat general," Exposition d'Architecture, 3 rue de la Boverie, Liège.

A Roll of Honour Tablet.

Mr. Sydney Bolton, Chairman of Lloyd's, has unveiled the Roll of Honour of Messrs. Robert Gardner, Mountain & Company, Ltd., at Ocean House, London. The Roll of Honour, on which are inscribed the names of those who served in the war, takes the form of a carved panel introduced into the mahogany panelling of the general office. A sword of justice supporting a laurel wreath together with the emblazoned arms of the City and Lloyd's provide appropriate decorative symbols. The work was executed by Messrs. G. and A. Brown, Ltd., of Hammersmith, from the design of Messrs. Bourchier, Tatchell, and Galsworthy, FF.R.I.B.A.

Wren Dome in Peril.

Mr. Cuthbert Lake, churchwarden of St. Stephen's, Walbrook, writes to the Press to draw attention to the fact that, owing to the recent intense heat, the lead on the dome of St. Stephen's has crept and fallen to an extent of over 18 in. The dome is being swathed in tarpaulin to keep out the weather, but for which the first heavy shower would bring down the enrichments of the interior of the dome, and the rector and churchwardens find that to preserve their church they must obtain somewhere about £1,350. It is to be hoped that the many hundreds who frequent its crowded organ recitals in the week days, together with all lovers of the City, may give some assistance. The amount at present available is only about £300.

Interesting Addition to the National Gallery.

A short time ago one of the most famous pictures in England passed to an American owner. This was the "Bacchanal" or "Feast of the Gods" at Alnwick, begun by Bellini and finished by Titian, as a companion picture to his still more famous "Bacchus and Ariadne" in the National Gallery and the two similar canvases at Madrid. These works a century later did much to form the style of Nicholas Poussin; indeed, at Edinburgh there existed a full-size copy by Poussin of the Alnwick picture. This copy, by the kindness of the Trustees of the National Gallery of Scotland, has now been deposited on loan at Trafalgar Square, and is on view in Room XX.

Competition News

Paisley War Memorial.

War memorial. Premiums £250, £2 and £150. Assessors Sir Reginald Blo field, R.A., and Mr. D. Y. Cameron, R Apply Town Clerk, Paisley.

Wolverhampton War Memorial.

War memorial adjoining St. Pete Collegiate Church. Premiums, 150 100 gs., and 50 gs. Assessor, Mr. John Simpson, PP.R.I.B.A. Apply Mr. F. Warbreck Howell, Town Clerk, Wolv hampton. Closing date August 13.

Partick and Whiteinch War Memorial.

War memorial for Victoria Park cost about £2,000. The successful co petitors will get the work. Second a third premiums £20 and £10 respective Apply Mr. James Arthur, Hon. Secreta 173 Byres Road, Glasgow. Closing d August 27. (Banned by R.I.B.A. a S.A.).

Chelmsford War Memorial.

War memorial. Premiums £10 1 and £5 5s. Apply Mr. R. C. Knig Secretary to the War Memorial Co mittee, Municipal Offices, Chelmsfo Closing date August 31. (The R.I.B advise their members not to comp until the conditions have been amende

Wandsworth Park.

Laying out as a park and recreat ground about thirty-one acres of la between Garratt Lane and Buckh Road, Wandsworth. Premiums 100 and 50 gs. Apply Mr. P. Do M.Inst.C.E., Borough Engineer, 215 B ham High Road, S.W. 17. Deposit guinea. Closing date September 5.

New Hospital Buildings at Cairo.

New buildings of Qasr el' Aini Hospi and School. Accommodation 1,225 be Assessor Mr. John W. Simps PP.R.I.B.A. Apply, enclosing chec or draft for three Egyptian pounds, or equivalent in sterling, to the Secreta R.I.B.A., 9 Conduit Street, Lond W.1. Closing date for preliminary co petition October 3.

Birmingham Hall of Memory.

Hall of Memory. Cost not to exc £30,000. Premiums £500, £300, and £2 Assessor, Sir Reginald Blomfield, R Competitors must have occupied offi in Birmingham for the past six mont Closing date October 12.

Society of Architects' Licentiates' a Students' Competitions.

Quarterly Competition ending Octo 31, 1921. Measured drawings, consi ing of one sheet to one-eighth scale, sheet to half-inch scale, and one sheet enlarged details. They must be deliver carriage paid, at the Society's offic 28 Bedford Square, W.C.1, by October together with the original sketches a notes. A first prize of the value of £6 and a second of the value of £4 4s., more than ten competitors send in th drawings, may be awarded, varied, withheld, at the discretion of the Coun The Architectural Scholarship, value £ for not less than three or more than f imperial sheets of measured drawings a details, made between January 1 a September 30, 1921, of some building historic interest. Licentiates and Stude of the Society may obtain further deta from the Secretary at 28 Bedford Squa W.C.1.

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THE ARCHITECTS' JOURNAL & Architectural Engineer

With which is incorporated "The Builders' Journal"



THE OLD THEATRE ROYAL, BIRMINGHAM.

(*Now demolished.*)

There are many who regret the demolition of this historical building, and will be pleased to possess an authentic view, printed from a wood block engraved soon after the building was erected. The theatre was opened to the public on August 14, 1820, with Sheridan's comedy "The Rivals," and a new farce entitled "The Promissory Note." For the illustration we are indebted to Mr. Bernard A. Porter, of Birmingham.

27-29 Tothill Street, Westminster, S.W.1.

War Memorials. 17.—Rickmansworth

W. Reid Dick, A.R.A., Sculptor



This memorial was unveiled at Rickmansworth last month by Lieut.-General the Earl of Cavan. It is 20 ft. high, comprising a well-proportioned shaft, with figures of Victory—1918 (in front), and Grief—1914 (behind), all in Portland stone, and a lion and eagle group in bronze at the top. Mr. Reid Dick is to be congratulated on having produced a simple, dignified, and extremely effective memorial.

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Speculative Building and the Architect

THE article by Mr. Arthur Welford, A.R.I.B.A., on "How to Educate the Public" (published in our issue for August 3) has aroused so much interest that we offer no apology for returning to the subject in these notes. Mr. Welford's general argument, it may be recalled, was to the effect that architecture can never be made widely popular by such means as free public lectures and notices and criticisms of new buildings in the public Press, as had been suggested by contributors to this and other journals. His premise need not now be opposed, though some not altogether negligible arguments might be brought against it. Let us come to his conclusion, which is that "object lessons, daily and hourly, to the uninstructed in the form of charming houses in which they must live, and beautiful buildings in which they must work, would be of more value than anything else."

"Object lessons," Mr. Welford aptly observes, "are ample fare, easily digested, and should go before the strong meat of literary instruction." If we admit the validity of Mr. Welford's argument, the task is to provide the object lessons; and this is the real difficulty of the proposal. So long as the bad buildings vastly outnumber the good, so long must the most pervasive object lessons be of the wrong sort; which leads on to the further reflection that so long as wholly unqualified persons are allowed to call themselves architects, and to practise as such, so long must the bad examples continue to multiply, with all the consequent ill-effects upon the public perception. All this is perfectly obvious. The difficulty is to find a remedy.

How may we ban bad buildings? Mr. Welford says it may only be done by having an architect to direct all building enterprises, particularly those of a speculative character, since more buildings are erected without architects than with. Speculative building, he says, in effect, always has been and always will be. If, therefore, architects cannot stop it, why not join in it, and so improve the general standard of architecture? To show that this would be no startling innovation he cites the distinguished precedent of the Brothers Adam, whose speculative enterprises in Edinburgh and London are familiar to all who have studied the architectural history of the late eighteenth century.

What, then, are the objections to speculative enterprise? First, that the professional code of ethics does not allow it. The following paragraphs from the R.I.B.A. statement of Professional Conduct and Practice put the case "against" with uncompromising clearness :—

"The profession of Architecture is liberal and uncommercial. It is incompatible with the business of a Contractor, Manufacturer, Dealer in (or agent for) materials used in Buildings, or of an Auctioneer or House Agent." "An Architect is remunerated solely by his fees, and is debarred from any other source of profit ——" "An Architect who owns, or has a commercial interest in, any material, device, or invention used in building informs his client thereof, and obtains his sanction before permitting it to be used in works executed under his direction."

We see from the paragraph last quoted that a commercial interest is not absolutely prohibited to the architect. But the obvious inference is that he must exercise such an interest vicariously, and not in his own person. If he offend against this time-honoured rule, he must necessarily lose some of the dignity and status that are associated with the professional man. The important thing to remember is that architecture is a fine art, and that the best traditions of the profession are against commercialism in any shape or form.

The second objection to an architect engaging in speculative work is that usually he has nothing, in the financial sense, to speculate with. This by the way.

It must not be forgotten, however, that speculation is of at least two kinds. There may be speculation with capital and speculation with brains. Forbidden to invest hard cash in a building project, an architect might, perhaps, be at least permitted to invest his talent; that is to say, take the equivalent of his fees in the form of shares in the concern, and run the risk of their not paying a dividend. A parallel state of affairs with regard to clients is, we believe, not altogether unknown to the legal profession. In the case of the architect, however, it is the more excusable; for, by designing a fine building, no matter on what terms, he confers a real benefit upon the public. To the development of this mild form of speculation we can see no serious objection, beyond the risk incurred by the architect. In any case we should then get good buildings where now we mostly get bad.

That speculation must necessarily mean the decline of art we cannot agree; historical precedent is all against the assumption. The artist, we imagine, will always express himself in sincerity and truth whatever the source, character, or degree of his reward. It is simply a matter of prestige. Can the architect afford to lose any of his independence? Loss of independence must inevitably mean loss of authority, and possibly loss of self-respect.

The controversy is one of extreme interest at a moment when professional affairs are in the melting-pot. Registration might profoundly affect the whole position, though it is doubtful whether the full benefit of discipline and control would be felt for at least a decade. It all depends upon the precise duties and privileges that a Registration Act might confer upon architects. If it protect merely the title "architect," then the unqualified may still design and erect buildings. If, however, Parliament were to decree that none but qualified men should do this work, then the problem of Educating the Public would be automatically solved.

Notes and Comments

The Ministry of Health Staff Reductions

SIR Alfred Mond has announced in Parliament that by the next financial year he hopes to reduce the Ministry of Health staff from 1,043, costing £323,647 on June 30 last, to 160, costing in salaries about £70,000. In other words, it is proposed to reduce the establishment to about one-fifth of its present size. This is extremely drastic. Of course, promises (especially Government promises) have no necessary relation to performances. The whole country is rightly insistent that, in view of the present state of the nation's finances, public expenditure must be reduced to the lowest possible limit. But below a certain limit efficiency is impaired. It is to be hoped that Sir Alfred Mond, in a panic-stricken effort to lighten the load, has not deprived the engine of its fuel.

An Absurd Suggestion

We have the utmost respect for the work of the sculptor, and a full appreciation of its significance in the civic sphere. But we cannot agree with a correspondent of "The Times," that statues should be placed on the piers of Waterloo and Westminster Bridges. In defence of Westminster Bridge we will say nothing. It is sham Gothic steelwork. But Waterloo is in a different category. "Waterloo Bridge," says the correspondent, "would nobly support in heroic size the rulers of our land. No great effort of the imagination is required to assure one that the effect would be both dignified and decorative"—nor, on the other hand, to assure one that it would be exactly the reverse. It is difficult to think that this suggestion is put forward seriously. "The Times" correspondent apparently does not know that Rennie's bridge is a great masterpiece—possibly the finest bridge in the world. Its massive piers and majestic arches need no ornamentation. Sculpture in any shape or form would rob it of its principal virtue—uncompromising strength. This is the dull season, and we must expect some extravagant things from the daily press. We beg, however, that imaginative correspondents will stick to the giant gooseberry and the sea-serpent, for verily when they abandon conventional topics they know not what they do.

East of the Tower

It is a truism that the Londoner knows scarcely anything of his own city. The typical Londoner is a man who, if he deviates by so much as a hundred yards from the regular route between his home and his office, does so under protest. The north knows hardly anything of the South, and the South is equally ignorant of the North. The architect is generally an exception; the exigencies of his profession decree that he shall be something of a "rolling stone." Yet while the architect may know much of the City and of the West End, what does he know of the East—of Poplar, Stepney, Limehouse? The very names conjure up a vision of squalor the most depressing. Few of those who do explore that obscure territory could give any reason for doing so beyond a curiosity to see how the poor live. Who thinks of architecture in connection with the East End? Yet architecture, after shipping, is its greatest attraction. Here in London's dockland is a water-front unequalled for picturesqueness, with miles of huddled wharves and jetties; a mediæval maze of lanes and alleys, lined with ancient houses (some of them looking as though they might well have concealed contraband in days gone by), and taverns that have echoed to the feet of many generations of seafaring men; immense docks that, though up-to-date in the matter of equipment, still retain much of the appearance that they had a hundred years and more ago; great warehouses of extremely fine architectural character; and dockyard gates that are object lessons in monumental design. Behind the water-front there is much to attract and charm the architect—quiet old squares with trimly kept gardens; rows of dignified eighteenth-century houses with characteristic doorway and balcony rails; Renaissance churches with lofty spire But why continue? This is simply London—squalid pe haps, and ,in places, perceptibly unsanitary—but, general speaking, a much older and more typical London than t City and the West End. Architects who have not explore it have a fascinating experience in store.

The Irregularity of London

Apropos of a note in last week's ARCHITECTS' JOURNA an esteemed correspondent writes to remind us some further instances of the Englishman's peculiar pr judice against formal planning. He refers to the case St. Paul's Bridge as "the most striking example of civ muddling in modern times." It may not be altogeth that, for those who opposed the plan that would have give us a bridge in line with St. Paul's dome did so on the ver practical ground that it would be inconvenient for traffi The alternative scheme, with the bridge opening on to th south-east side of St. Paul's Churchyard, and the contin ing roadway skirting the east end of the cathedral, offere a much more practical solution of the problem from th traffic point of view. That we missed an opportunity opening up a splendid vista of St. Paul's cannot, howeve be denied. Another instance of "deliberate aberration to which our correspondent makes reference is that Trafalgar Square. Barry must be held responsible fo not securing a central alignment with Whitehall, but n doubt there were obstacles in the way of a more forma treatment. But London, from the town-planning point view, is generally hopeless. All her best buildings a hidden away and deprived of the advantage of a dignifie setting. If only our civic forefathers had had sufficien wisdom to allow Wren a free hand after the Great Fir London would have been a different city, and we shoul all have been hard up for a grievance.

The Modern Symbolism

Our friends the Americans continue to lead the way, i architecture as in most other things. They have invente a new kind of symbolism. Mr. Donald Robb, an America architect, commissioned to design a new frieze over th brides' entrance to the fashionable Church of St. Thomas Fifth Avenue, conceived the happy idea of introducin into his work something symbolical of the marriage bon On one side of the frieze he drew the sign of the dollar, an on the other side the lover's knot, his intention being t convey, as politely as possible, the intimation that marriage are divided into two distinct classes. "The dollar," say Mr. Robb, "is the symbol of riches, and tells the story o the loveless marriage. The lover's knot is the true symbo of matrimony without a financial contamination. Ove the main door the figures are taken from the life of Fift Avenue. There you will find the 'chappie' with the vapi countenance, who affects a monocle; the haughty dowage and the rich, proud matron. On the other hand, as oppos ing types, there are men and women with faces of character This is all very pretty and quite in the mediæval manner It will appeal to a distinguished confrere of ours who pro fesses to detect the portly person of William of Wykeha in the west front of Winchester Cathedral. We canno believe, however, that the frieze will greatly please th dollar princes and their brides as they pass beneath it t the altar. It is much too unkind. For our own part w prefer unconscious symbolism; it is infinitely more amusing At a certain London terminus there is a buffet that, in it architectural treatment, is almost painfully symbolical o purpose. Its plan is circular, in imitation of the domesti platter, and the glassware of the electric-light fittings likewise round and flat, helps to sustain the illusion o feeding utensils. A dentil cornice gnashes its teeth at al who enter, while the ceilings of adjacent alcoves take th very appropriate form of inverted saucers. It could hardl have been more effective if deliberately contrived.

Should the Architect Speculate?

Opinions of Correspondents

IN our issue for August 3, Mr. Arthur Welford, A.R.I.B.A., suggested that the only way to get the general public interested in good architecture would be to allow qualified architects to engage in speculative building operations, which, as they are now mostly conducted by unqualified and often incompetent men, tend to lower the standard of architectural achievement, and have a harmful effect upon the public judgment. Mr. Welford's article has aroused a good deal of interest, and below we print a number of letters that have been received with regard to it.

Professional Man or Tradesman?

Mr. Arthur Keen, F.R.I.B.A., writes: "My feeling upon Mr. Welford's suggestion is that if an architect sees his way to becoming a successful speculating builder he should by all means do so, because it is clear that the public would benefit by the houses that are 'built to sell' being better planned than they generally are, and anything that helps to bring more houses into the market at the present time is good; but if he does so I think that he should cease to practise as an architect. He must make up his mind to being either a professional man or a tradesman; there are obvious objections to the combination of the two callings."

"A Retrograde Step"

Mr. William Woodward, F.R.I.B.A., F.S.I., writes: 'I have read with considerable interest the article by Mr. Arthur Welford. Personally I think it would be a distinctly retrograde step for architects to indulge in speculating building work, identifying themselves, as seems to be suggested, more with 'commercialism.' It is stated in the article that this might result 'in better architecture all round,' but I do not see how that idea could be realized. Speculative building operations should be confined to the speculating builder; but that, of course, would not prevent the speculative builder from employing an architect to design the buildings, with the result that the builder could keep to *his* legitimate work, and the architect to his. The above, of course, are only my own views, and no doubt the ventilation of the subject will lead to a considerable divergence of opinion."

Adverse to Architecture

Mr. Frederick Chatterton, F.R.I.B.A., writes: "It is certainly startling to find an Associate of the Institute expressing the view that 'there is no real necessity for a speculator and his financial backer to employ a qualified architect to design and superintend the erection and the details' of a large building fronting an important main road, 'except, perhaps, in the capacity of "Ghost" at a small salary.' In the opinion of your correspondent, Mr. Welford's advocacy of a close business association between architects of repute and building speculators and financiers should be opposed with no little vigour. There is, however, one excellent reason why such collaboration is not likely to take place, and this is that a good architect would be of no use to the promoters of a speculative building project. They could not possibly see eye to eye with him, and his efforts to impart architectural dignity to the buildings would be vetoed at the very outset as a waste of money. In order that he should shine in such a capacity his mentality would necessarily have to coincide with that of his 'confederates,' the speculating builder and the financier, and this would imply a total indifference to such fundamentals of design as composition, beauty, and grouping. Consequently, if he were gifted with these negative qualifications, the kind of architecture he would produce would hardly be of a high quality; and if he did possess them, he would as certainly be no architect."

The Choice Before the Architects

"H. J." writes: "When David Balfour, in 'Kidnapped,' hesitated to plunge into the brawling mountain-torrent, that bolder spirit, Alan Breck, yelled into his ear: 'Hang or drown,' and David smothered his fears and reached safely the other side. And to any architect who may be troubled in mind as to whether to give his soul to the devil or the deep sea, I would say that the devil in this case is a strong chance of starving from lack of commissions, and the deep sea may be only the diving into waters not necessarily dirty to recover the pennies at the bottom. Of course, the Council of the R.I.B.A. might decree that every mudlark should be burned alive—but where would they get sufficient wood?"

A "Hearty Endorsement"

"Looker-on" writes: "May I be permitted to utter a hearty endorsement of Mr. Welford's enterprising, albeit unconventional, suggestions for the education of the public, and, dare one add, for the salvation of the architectural profession? Architects are, it is generally confessed, in a bad way, and present conditions and public apathy are freely blamed; but is it quite inconceivable that the profession should be its own worst enemy? The public will, to put it crudely, only buy what it wants, and if architects cannot or will not 'deliver the goods,' they must resign themselves to enforced idleness. At any rate, they will have their unimpaired professional dignity for consolation. *Autres temps autres mœurs*, as Mr. Welford aptly remarks; the present age of commercial bustle has no place for pure æsthetics as a means of livelihood. They are a luxury for the idle rich. Let the architect descend from his lofty perch, forget all about his erstwhile splendid isolation, and devote his magnificently trained mind and painfully acquired knowledge to finding a job of work, and making a success, both financial and artistic, of the same. He will find it pays."

Educate the Builder

"Provincial Architect" writes: "I was greatly interested in Mr. Arthur Welford's article on 'How to Educate the Public,' and admire his courage in setting forth such unconventional views. I should like to point out that speculative design is not necessarily the perquisite of unqualified architects. In only too many instances there is no architect at all, the design (if I may use the word) being supplied by the builder himself. Builders and contractors are great sinners in this respect, and are as much in need of education as the general public. On the other hand, of course, there are large numbers of enlightened builders who appreciate the value of the architect's services, and, if approached direct by a would-be client, insist that the work of design shall be put into the hands of an architect. To them all honour is due. How may we bring their unhappy brethren to see the error of their way? Mr. Welford rightly condemns the speculator and financier who exploit the architectural capacity of the poor unhappy 'ghost.' But 'ghosts' there have always been, and some of these apparitions (may it be whispered?) have been said to haunt the offices of distinguished architects. Is it not also a fact, to be perfectly frank, that the regulations against speculative enterprise are 'more honoured in the breach than in the observance'?"

The R.I.B.A. Examinations—Some Recent Modifications

By W. S. PURCHON, M.A., A.R.I.B.A.

In this article Mr. Purchon gives some useful hints to students on the alterations recently made by the Royal Institute in the conditions governing the Testimonies of Study for the Intermediate and Final Examinations.

FOR some considerable time many of those interested in architectural education have been dissatisfied with the "Testimonies of Study" which have been submitted for the R.I.B.A. Intermediate Examination by those students who are not taking a full course of study in a "recognized" school, leading to exemption from that examination. This sort of thing is of course inevitable, particularly in the case of a centralized system of examination. Even in the leading schools of architecture, which have a virility and an approximation to the realities of practice abnormal in art education in this country, the flow of ideas may outstrip the changing of regulations.

Changes Necessary

Changes are necessary in Testimonies of Study and similar tasks to prevent the dullness which comes from monotonous repetition. Especially is this so when, as in the case under discussion, the tasks are rigidly defined. Apart, however, from the advantage to be obtained from almost any change, it can without difficulty be shown that the recent modifications are in themselves particularly sound.

The old regulations for the first two testimonies read as follows: "Two sheets, giving examples (one on each sheet) of any two of the Orders of Architecture here named—the Doric, the Ionic, or the Corinthian—drawn in outline, with the ornament and enrichments filled in; each sheet to contain two columns of one Order with entablature complete, drawn to scale (the columns being not less than 10 in. high on the paper), and details to three times the scale of the columns, with diagrams showing application to whole building."

"Monotonous Tasks"

These regulations have been followed with meticulous care by large numbers of students, and the results have been dull and dreary in texture. Part-time students in "recognized" schools have been prevented by these testimonies from following the normal course adopted by the full-time students, because it was not considered wise to waste the time of the latter on these monotonous tasks, while in the schools which have not obtained R.I.B.A. "recognition" the preparation of these uninspiring testimonies played far too large a part in the curriculum.

In the new scheme the first two sheets are still to consist of drawings of the Orders, but the conditions are given in more general terms, allowing greater latitude, but emphasizing the importance of the general arrangement of the building: "Two sheets showing the application of one or more of the Orders of Architecture to a building. A general drawing of the building to be given on one sheet, with details on the second."

It will be noted that no period is mentioned. This was the case with the old conditions, but rarely was advantage taken of the fact. As a variation on the usual Greek examples, the Theatre of Marcellus could be used, the first sheet consisting of, say, an elevation of two bays, with section and plan through the façade, and a small scale plan of the whole building to illustrate the general arrangement, while details of both orders could be given on the second sheet. Other excellent Roman examples are to be found in the various triumphal arches.

Renaissance Buildings

Suitable buildings of the Italian Renaissance are, of course, very numerous: Palladio's Basilica at Vicenza; the Massimi Palace, Rome; the Library of St. Mark, Venice; or the gateways of Verona may be mentioned as particularly worthy of study. Nearer home Inigo Jones's Banqueting Hall in Whitehall makes a fine general drawing for the first sheet, as would also the Senate House or the Portico of the Fellows' Building at King's College, Cambridge, or a portion of Wren's work at Hampton Court. Good drawings of most of the above are to be found in various monographs and in published collections of measured drawings; in many cases students commencing their studies could prepare these first two testimonies from the dimensioned sketches made by older students during a previous vacation.

Method of Presentation

As far as possible these drawings showing the application of the orders should be set out to scales used in modern work, scales of modules being given in addition if thought desirable. Full-size details should be included if possible; even if the building is on too large a scale for this to be done completely, some of the smaller parts can often be shown full size with advantage.

Sheet 3 remains as before, but attention may be drawn to the advantage of a section through mouldings and enrichments so as to give greater architectural value to the study—a sheet of details of Classic or Mediæval Ornament drawn from the round.

Sheets 4 and 5 are also unaltered: "Two sheets of measured drawings of an existing building or portion of a building, to be selected by the candidate, with the plottings and sketches." Here, again, the importance of full-size details, and also of clear and complete original plottings and sketches may be mentioned. Too frequently measured drawings are set up from very insufficient data. Care should be taken in the indicating of stone jointing, and before commencing to measure a building, young students should ask a competent authority whether it is worthy of study.

The old regulations for the last three testimonies are as follows:—

6. One sheet containing diagram of timber-framed Roof Truss, not less than 30 ft. span, with the nature of the strain on the several parts marked thereon, the ironwork and the junctions of the timber drawn to a scale of 1½ in. to the foot, in isometrical projection and dissociated.

7. One sheet showing the construction of Floors—framed timber, combined iron and timber, and fire-resisting materials suitable for a room 30 ft. by 20 ft. drawn to a scale of ½ in. to the foot.

8. One sheet of details of Joiner's Work in doors, windows, and fittings shown in plan, elevation, and section, to a scale of 1 in. to the foot, with details to a large scale, of mouldings and framing.

The drawings resulting from these conditions have often been particularly disappointing. The application of the roof-truss was rarely made clear; much time was spent in drawing framed-timber floors and types of fire-resisting floors of antiquarian interest only; joinery details were rarely in keeping with modern practice, and often drawn to useless scales, while the very fact that all these various sheets were unrelated was in itself a great disadvantage.

Working Drawings

Under the new scheme the student is asked to produce "Three sheets of working-drawings of a building of moderate dimensions, showing clearly the construction of floors, roofs, joinery, etc. The general drawings to be drawn to the scale of 8 ft. to 1 in., with ½ in. and full-size details."

In doing this work the student is preparing for normal practice by producing a set of working drawings. He will not in the usual case design the building as he will in later years, but will probably prepare the drawings from a set which has been used for the erection of an actual building. He will no doubt find inconsistencies in these drawings which it will be interesting to correct, but he will get a still better exercise if he can compare them with the completed building.

One of his drawings would normally consist of the plans, elevations, and sections to the scale of 8 ft. to 1 in.; a second sheet would be used for the ½ in. details in elevation, plan, and section, while the third sheet would be filled with full-size details, mainly, no doubt, of joiner's work, which can only be properly studied by means of actual examples and full-size drawings.

In setting out these drawings it will probably be best in most cases to set out the eighth-scale drawings in outline first, so that the student becomes familiar with the general arrangement of the building in plan, section, and elevation. The full-size details should then be plotted, as that enables the student to draw the ½ in. details with under-

105.—New Building for Barclay's Bank, Ltd., Pall Mall East, London

Arthur Blomfield, M.A., F.R.I.B.A., and A. J. Driver, F.R.I.B.A., Architects.



The above new building is now in course of erection at the corner of Pall Mall East and the Haymarket, one half of it being complete, as shown in the photographic illustration on page 193. The remainder of the work is well in hand. Plans of the building are reproduced on the double-page plate of this issue, pages 200, 201.

standing and accuracy, while the drawing of the latter will enable him to complete his eighth-scale drawings properly.

Tackled in the right spirit the preparation of the Testimonies of Study for the R.I.B.A. Intermediate should now prove to be an interesting and useful task. One difficulty the conscientious student has had in the past is that of getting all he desires to show on seven half-double-elephant (or *single* elephant as an eminent Vice-Chancellor once suggested during the drawing up of the regulations for a Degree Course in Architecture) sheets. Such a student may bear in mind that the R.I.B.A. Board of Architectural Education and the R.I.B.A. examiners are really quite reasonable and human, and are not likely to object to students who send *more* than the minimum requirements.

With regard to the final examination all broad-minded students of architectural education will agree with the reasonableness of exempting the holder of the Rome Scholarship in Architecture from this examination under the usual conditions at the conclusion of his three years' study abroad, and the holder of the Henry Jarvis Studentship at Rome after his two years' study abroad, provided that their work is approved by the Board.

It has also been decided that designs prepared at the Royal Academy Ateliers and also at the "recognized" schools may be submitted for approval by candidates for admission to the final examination, in lieu of the same number of R.I.B.A. Problems in Design. There can surely be no objection to this modification in the previous conditions. The R.I.B.A. Problems have been set with the main object of providing a reasonable scheme of work for those preparing Testimonies of Study for the final. For students who are not attending one or other of the leading schools or ateliers the R.I.B.A. Problems "fill the bill," but for students who are going through a systematic course of instruction, there is no reason why the problems set by the heads of the schools as parts of those systematic courses, should not answer the requirements of the R.I.B.A. In any case the work so done has to be approved by the Royal Institute examiners, so that here again, as in the modifications in the Intermediate Testimonies, the Board of Architectural Education has shown that it is removing obstacles of the red-tape variety, is assisting in the process of making architectural education more reasonable, and that it is acting in the best interests of the students and of the profession.

New Building for Barclay's Bank, Ltd.

Among the large number of buildings now being erected in London, one of the most considerable is that for Barclay's Bank, Ltd., at the corner of Pall Mall East and the Haymarket, Messrs. Arthur Blomfield, M.A., F.R.I.B.A., and A. J. Driver, F.R.I.B.A., architects.

This building occupies a commanding site, and is of an architectural character befitting its position. It is five stories in height, including the roof story, and has an imposing square tower at each of its four corners. The principal roof ridge is surmounted by a delightful little cupola, and the roof line is further noticeable for the architectural treatment of its chimney-stacks. The elevations generally are of a simple dignified character, and rely for their effect upon the fenestration.

The plan is of a regular type with, on the ground floor, a central entrance hall and staircase, and banking halls on either side. The building has a central area, with a corridor running continuously around on all floors from the first upwards. Circulation is good, and lighting excellent. About one-half of the building is now complete, and the remainder, well in hand, should be finished at an early date.

The general contractors were Messrs. Trollope and Colls, the following subcontractors also being associated with the work: The Aston Construction Co., Ltd. (steelwork); R. E. Pearse & Co., Ltd., and the Crittall Manufacturing Co., Ltd. (casements and casement fittings); Matthew Hall & Co. (plumbing and sanitary work, ware, and fittings); J. Whitehead and Sons, Ltd. (mosaic, marble, and stone flooring); Strode & Co. (electric wiring); G. and A. Brown (plaster work); Hart, Son, Peard & Co., Ltd. (door furniture); G. Robinson & Co. (railings and balusters); S. Haskins and Bros., Ltd. (shutters, etc.); Waygood-Otis, Ltd. (lifts and cranes); R. Crittall & Co. (heating apparatus); and Chubb and Sons, Lock and Safe Co., Ltd. (strong-room doors, safes, etc.).



BARCLAY'S BANK, PALL MALL EAST, LONDON: THE BANKING HALL.
ARTHUR BLOMFIELD, M.A., F.R.I.B.A., AND A. J. DRIVER, F.R.I.B.A., ARCHITECTS.

Correspondence

Registration

To the Editors of THE ARCHITECTS' JOURNAL.

SIRS,—In reply to my letter published by you on June 8 you kindly noted my suggestions were having your attention, and I know that your readers would greatly value your advice. I asked if you could help us in the following way :—

(1) Give us your idea of what a Registration Bill should be, so as to be of *practical* use to the profession.

(2) Obtain the advice of some leading Parliamentary Agents on the chance of a Registration Bill in any shape or form becoming an Act of Parliament.

Architects in the provinces are clamouring for an Act that will prevent their work being carried out by auctioneers and house agents, but a Registration Bill, as mentioned in your article published on May 25, would not be the slightest use to them. Shortly, you state the Unification and Registration Sub-Committee's Bill would only prohibit a man calling himself an architect unless he were qualified, but the men who do our work don't call themselves architects! A similar Bill was suggested many years ago to Mr. Norman Shaw, who stated that rather than be so registered he would call himself a plumber, and continue to practise as an architect. Again, if the Bill were passed, all a man need do would be to follow the example of Wren and call himself a surveyor. Such a useless Bill is not worth five minutes' consideration, and if it became an Act it would not be worth the paper it was printed on. We want an Act that really will protect architects. Please help us.

THOMAS.

[The point raised by "Thomas" is one of the utmost difficulty. We must confess that we see little prospect of Parliament affording to architects the kind of protection that he apparently has in mind. It would be just as reasonable to expect statutory protection for painters and sculptors. So long as a man is able to prove himself capable of designing a building that will satisfy Building Acts and by-laws, we imagine that he will continue to be permitted to exercise his talents in that way.—EDS. A.J.]

Unification of Architects

Copy of Letter addressed to the Editor of the R.I.B.A. Journal.

To the Editors of THE ARCHITECTS' JOURNAL.

SIRS,—Amongst the members of the Royal Institute of British Architects there is again a growing desire to obtain statutory powers for the unification of architects.

This object, it is hoped by the supporters of the movement, may be obtained by inducing unattached architects to join the R.I.B.A., so that the Institute may be in a position to represent the whole profession when a Bill is to be laid before Parliament. In the meantime it is proposed that the Institute should amend its by-laws and apply to the Privy Council to have its Charter revised, so that the doors of the R.I.B.A. may be thrown wide open for all unattached architects to enter.

However desirable unification may be, it is thought by others that the proposed method of opening the doors is not the right course to secure this end, for in the event of failure to obtain a Bill the status of the Institute would be lowered without any compensating advantage.

A Committee of Fellows of the Institute has been formed to consider this important subject: Mr. A. W. S. Cross, Vice-President R.I.B.A., has been elected Chairman; Mr. H. D. Searels-Wood, Vice-President R.I.B.A., Vice-Chairman, and the undersigned as hon. secs.

This committee has come to the unanimous decision—"That until a Registration Act has been obtained no real unification of the profession is possible, therefore they are of opinion that no change should be made in our constitution with regard to unification until a Registration Bill is passed."

We should be glad to hear from Fellows, Associates, or Licentiates upon this matter as well as from unattached architects who may chance to see this letter.

Yours obediently,

(Sgd.) SYDNEY PERKS,
Guildhall, E.C.

(Sgd.) GEORGE HUBBARD,
112 Fenchurch Street, E.C.3.

Architecture as a Profession

To the Editors of THE ARCHITECTS' JOURNAL.

SIRS,—In an interview recently reported in the public press, Mr. C. McArthur Butler, Secretary of the Society of Architects, is stated to have expressed the view that the young man who wants to be successful from a material point of view should choose some other profession than that of architecture.

With all respect to Mr. Butler, I make bold to say on behalf of my executive and those this Union represents, that the propagation of such a doctrine, at such a time, and by such an authoritative official, is, to say the least of it, inopportune. Such a view surely cannot be accepted in these hard, matter-of-fact times. Architecture *is* an art, but cannot be looked upon in the same light as that of the painters and sculptors who practice their arts and attain prominence in them entirely by the application of their individualism.

To carry on his profession, an architect whose practice has reached any appreciable size *must* employ men often as well qualified and as able as himself. That being so, the profession of architecture must be looked upon, not as Mr. McArthur Butler views it, but from the harder, economic, business-like point of view consistent with the times in which we live.

For can a profession justify itself in the eyes of the public if it continue to slumber, at peace with such a retrograde policy as that expressed by the Society of Architects through its able secretary, when its admittedly uneconomic position to-day cannot allow of its practitioners affordir a remuneration to their assistants con mensurate with the higher cost of livin or in any way adequate to permit the employees (men of standing and qualif cations equal to those of their employer to adopt a standard of living compatib with the highly "respectable" calling which Mr. Butler speaks?

In this vineyard, as in any other, th labourer is worthy of his hire.

The A.S.A.P.U. is now in existence t combat this long-standing grievance the architects' and surveyors' assistant Its progress has been really wonderfu taking into consideration the many old established barriers its founders have ha to face. The fight for better condition for these men its executive Council i proud to represent may be a long one but the present apparently insuperabl obstacles of ancient prejudice and apath my executive feels confident will eventu ally be overcome."

Yours faithfully,

JOHN B. HECTOR, Hon. Gen. Sec.
Architects' and Surveyors' Assistants Professional Union.

Schools of Architecture: Awards and Prizes

Manchester School of Architecture.

The following scholarships and prize have been awarded by the Manchester School of Architecture for the Session 1920–21 :—

Manchester District Institute of Builders Travelling Scholarship, £120: Mr W. H. Owen.

The R.I.B.A. James's Travelling Studentship, £50 : Mr. R. A. Cordingly.

Special prize given by Mr. Barlow fo Town Planning, £10 10s. : Mr. R. A Cordingly.

The prizes given by the Manchester Society of Architects are as follows :—

The M.S.A. prize for measured drawings £20 : Mr. R. A. Cordingly.

Special prize for measured drawings £12 12s. : Mr. F. J. Halliday.

Bradshaw Gass prize for measured drawings, £12 12s. : Mr. G. G. Quarmby.

Beaumont prize for measured drawings £3 3s. : Mr. R. Byrom.

President's prize (Essay), £5 5s. : Mr. R. Byrom.

Liverpool University School of Architecture.

Following is a list of the Scholarship and Prize results, 1921, of the School of Architecture, University of Liverpool :—

Fourth Year.

Holt Travelling Scholarship, £50 : E. R. Arthur.

Third Year.

Honam Travelling Scholarship, £50 (awarded by the Liverpool Architectural Association) : E. W. Martin.

Lever Prizes in Architecture : 1st Prize, £15, divided between Edwin Williams and H. W. Pritchard; 2nd Prize, £10, divided between E. M. Fry and D. Brooke.

Second Year.

Two R.I.B.A. Jarvis Travelling Scholarships, £50 each: J. H. Forshaw and Edwin Williams.

First Year.

Elmes Memorial Entrance Scholarship, £30 : E. H. H. Higham.

University Studentship, £30 : Donald Bradshaw.

ARCHITECTS' JOURNAL Prize Essay (open to students in all years) : H. S. Silcock (Second Year Student).

Department of Civic Design.

Lever Prizes in Town Planning : 1st Prize, £15, divided between B. Butler and R. D. Jones; 2nd Prize, £10, divided between S. O. Hill and E. Reily.

Current Architecture. 106.—New Building for Barclay's Bank, Ltd., Pall Mall East, London: Elevation to the Haymarket

Arthur Blomfield, M.A., F.R.I.B.A., and A. J. Driver, F.R.I.B.A., Architects



The above view shows the completed portion of the new building for Barclay's Bank which is now being erected at the corner of Pall Mall East and the Haymarket. The banking hall occupies the greater part of the ground floor, its windows overlooking the latter thoroughfare. Ground- and upper-floor plans are reproduced on the double-page plate of this issue.

Character in Architecture*

By M. WALL

·N the earliest times, when man first was conscious of the world, the essen- tials of all the arts surrounded him. ɔlour, form, and music were common ɔjects to his eye and ear, and naturally e copied them. There was, however, ɔthing in nature to suggest building, ill less building as an art. Therefore chitecture was the unaided product of an's awakening brain, and for this ason character in architecture has ɔsely followed the broad lines of man's vn development.

As long as man's outlook was bounded the thought of life as a precarious span years, during which he was under the ɔmination of powerful, unreasoning ngs and grotesque gods, so we find chitecture developing on those lines, aracterized by its excessive propor- ɔns and confused plans.

The palaces of kings consisted of veral courtyards leading out of each her, surrounded by a labyrinth of small oms, before the main central hall could reached, while the gateways and pub- halls of these palaces were built on a agnificent and richly ornamented scale. ıe temples were simpler, having a single ain axis for their plan, but also con- ting of halls filled with columns, and ıer courtyards, and priests' rooms rrounding the chamber where the ıtue of the god was placed.

As time passed the Greek civilization gan to dominate the world, and we find e characteristics of this civilization in its architecture. The Greeks were a most human people, the weird gods of the Egyptians and Assyrians gave place to gods who were super-men and women, endowed physically and mentally with human perfections. The trained athleti- cism of the Greeks and their sane outlook on life impressed itself on their buildings. Thus, the character in their architecture is simplicity, symmetry, and perfect serenity. To take only the Acropolis: we find there a collection of temples of varying styles, yet each one in its ordered beauty, dignified columns, simple plan, and grandly proportioned statue of a human god, is a unit of perfection, making the Acropolis the lasting wonder of the ages.

Under the Roman Empire a social development took place. The Romans were a great colonizing race, and therefore their people thought in terms of empire; they had a public, sometimes almost a municipal, outlook on life. So we shall find that their buildings were mainly the expression of the obligations of the State to its citizens—even the temples were used less as shrines for their gods than as public galleries and museums for the people. The Roman architecture was characterized by the imperial idea of stability, grandeur, and self-assurance. The fora were surrounded by large groups of buildings all of a public character. The citizens were further catered for by baths, theatres, race-courses—all on a large, magnificent scale. Compared with the Greeks we find the more grandiose ideas of an imperial race as opposed to a simpler, individual state.

In the middle ages, chivalry, crusades, and the feudal system characterized civilization. Martial castles and keeps were built, having narrow windows and thick, massive walls; the castle dominated the surrounding country, and protected the clustered hovels of the dependent vassals.

The new Christian religion, with its ideals of aspiration towards a clearly defined God, was typified by the Gothic cathedrals of Europe—slender shafts and soaring spires reflected the spiritual strivings of the times. And lastly, to come to more modern times, the world has been steadily gaining prosperity and security—commerce has grown to be the pursuit of the nations; rivalry and per- sonal advertisement are the new charac- teristics of these times.

Plain, direct buildings, in which beauty is subordinated to utility, are the character- istic of every modern town. Where one building differs from its surroundings it is often the outcome of a desire to attract attention—the spirit of advertise- ment—of which Regent Street and Bond Street are now examples.

Since the prosperity of the modern state has given liberty to the individual citizen, we have to-day the entirely new problem of a domestic architecture con- forming to no particular style except the sweet will of the owner, and we get the modern villa-residence, or, still worse, the profiteer's mansion.

The subject of character in architec- ture is a wide and debatable one, but an endeavour has been made in this short outline to show how its character has changed and been modified by the gradual evolution of civilization.

*This Essay has been placed second in a competition promoted by the Proprietors of this JOURNAL. Mr. Wall is a student in the Liverpool University School of Archi- tecture. The Essay by Mr. H. S. Silcock, placed first in the competition, was published in our last issue.



PLAN SHOWING LOCALITY OF THE SITE FOR THE NEW UNIVERSITY OF PARIS (SITE INDICATED BY STIPPLES).

(For the above reproduction we are indebted to Sir Charles Walston.)

Enquiries Answered

The Editors cordially invite enquiries from readers who require information on architectural, constructional, or legal matters.

Answers to enquiries are in all cases the work of experts, and while every care is taken to make the replies thoroughly reliable, the Editors cannot hold themselves responsible for any inaccuracies that may inadvertently occur.

Correspondents whose difficulties involve possible legal proceedings are strongly urged to consult their solicitors before taking action on any advice that may be given.

Examination questions cannot be answered.

It must be understood that, as a rule, both question and answer will be published in these columns. The name and address of the querist must always be given, not necessarily for publication.

Correspondents are requested to be as brief as possible, and to write on one side of the paper only.

U.D.C. and Chapel of Ease.

Student, R.I.B.A., writes: "Can you inform me whether a local urban district council who have no sewage scheme are within their powers in refusing to approve a plan of a chapel of ease on the grounds that no w.c. accommodation is provided? My clients at this stage do not wish to go to the expense of providing the accommodation with septic tank complete. Please give me the references for their authority if any, in the Health Acts."

—Assuming that there are no caretakers' rooms attached to the chapel of ease, the building clearly comes under the definition of a "public building" as set out in the interpretation clauses in the model by-laws. These by-laws do not compel the provision of drains, much less w.c. accommodation, and in my opinion the urban district council are asking for something which is quite beyond their authority. They have no powers to refuse to pass plans which are in accordance with the by-laws, and may be proceeded against by the summary process of mandamus.

F.S.I.

Varnish in Paint.

"L. M." writes: "I should be glad to have the opinion of one of your experts as to the use of varnish added to paint, also whether boiled linseed oil is preferable to raw oil. Please mention the proportions for good glossy paint inside and outside."

—These are very interesting questions, because there is a difference of opinion concerning the points raised even among decorators of large experience. However, a majority of painters will probably agree with the following: varnish added to paint which is to be used on outside work adds both to appearance and durability. It is important that a special mixing varnish be used, and this can be supplied by any varnish manufacturer. Many grades are quite unsuitable.

For inside work, which is of a finer and more delicate character, the best results are obtained, when a high gloss is required, by painting the last coat quite flat and then applying a coat of good copal varnish. If, however, this method is thought to be too expensive, an increased gloss of the paint may be obtained by adding a little mixing varnish. The proportions will depend upon the quality of the varnish, but half a pint to the gallon for outside work, and a little less for inside work, may be taken as a fair average.

As to the use of boiled oil. It should never be employed on inside work, but may be used on exterior work to the extent of from 25 per cent. to 75 per cent.; 50 per cent. is safe if the oil is of first-class quality. In the preparation of boiled linseed oil certain driers which are soluble are added, such as litharge, manganese. The oil is then raised to a temperature of from between 220°C. and 228°C. It must always be above 200°C.

It is said that the cheaper varieties of so-called boiled oil are not boiled at all, but a liberal quantity of driers is added. The Americans call such oil "bung-hole boiled." Genuine boiled oil should not be too thick, as if it is the paint will not dry hard. It varies in colour from pale yellow to reddish yellow or brown. light paints the first only should be us and if it cannot be obtained no boiled should be used at all as the dar varieties would spoil the light tints.

Pale boiled oil in conjunction with p mixing varnish is very useful when p zinc oxide is used for exterior work; fact, that pigment will not prove dura without both materials are used. Bo oils dry in periods varying from five twenty-four hours when applied to g without admixture. The quick-dry oils contain an excess of driers, and they are used a smaller proportion sho be used than in the slower-drying oils.

The objection to the use of boiled is precisely that which is true in reg to using an excess of driers in pa The film never becomes quite hard, o may harden at the surface and afterwa become soft all through. A good qua used in moderation is a decided adv tage, but it should never be emplo when mixing varnish is added to the pa

ARTHUR SEYMOUR JENNINGS



THE DOVER PATROL MEMORIAL.
SIR ASTON WEBB AND SON, ARCHITECTS.

Approved Building Systems.

"J. A. D." writes: "Please give me a st of building systems approved by the linistry of Health for housing schemes, lso the addresses of the firms who carry ut the work."

-The building systems that have been pproved for housing by the Ministry of lealth are so numerous that they have een published in book form under the tle of "Standardization and New lethods of Construction." A copy of ıis publication can be obtained, price s. 3d., from His Majesty's Stationery ffice, Kingsway, London, W.C., and rovincial branches, or through any ookseller.

Book Notice

Mediæval Homes.

This, the first of a new series of ooks on English Homes, has been ritten by Mr. W. Avray Tipping, hose work is so well known to readers of Country Life." Many of the admirable lustrations to the book have already ppeared in the pages of "Country Life," ı conjunction with the articles which Ir. Tipping contributes under the head-ıg of "Country Homes and Gardens ld and New." The opportunity which as thus been offered to the author of isiting all the houses illustrated has rovided him with a rich store of experi-nce on which to draw.

All architects will agree with the writer f these notes that though it would be ard to improve on the architectural lustrations in "Country Life," yet it is very serious fault when they appear, s they frequently do, unaccompanied y a plan, and the fault is repeated in this ook. Bamburgh, Allington, Durham, nd Maxstoke castles are plan-less, and o rather lifeless. The illustrations ecome a mere collection of pretty pic-ures; but Penshurst springs into life, nd we can read it by reason of the plan n page 168. Plans could be so easily rovided, and if Mr. Tipping cares to ıake application to the Architectural ssociation he will at any time find many oung architects who would welcome the ork in vacation time, and be prepared to o it at no very great cost. We hope to nd the defect remedied in other volumes, nd the criticism is offered with the sin-erest wish to add to the value of an lready valuable contribution to the istory of domestic architecture.

The period 1066–1485 opens with the onqueror, and closes with the death of ichard III. In many ways it is a re-reshing change to the constant Georgian heme. We are a little tired of the lanoverians, and it is a relief to have Ir. Tipping's pictures as a background or our imaginings of the pageant of life s it was lived in the Middle Ages. It is lso conceivable that the architect of o-day may be able to learn something om building as it was done in these so-alled Dark Ages.

We find ourselves to-day handicapped y high costs of labour, materials, and ransport, with more than a suspicion hat prices are manipulated against us y rings and combines. The immediate ffect of this is that we are thrown back n our own resources; we become mediæval



DETAIL OF BRONZE DOORWAY IN BASE OF THE DOVER PATROL MEMORIAL.

in our outlook. In so far as this means that we use local materials and methods, and make our buildings racy of the actual soil out of which they are compounded and grow, then the effect should be all to the good. The men of Gothic times were extraordinarily economical in their methods, and attained their ends with ease; if they were provincial in their outlook on domestic architecture, was it wholly a fault?

Shall we approach the problem of building from another angle. The war has conferred on us a gift of doubtful value—the power of seeing ourselves as others *will* see us. The whole world is miserable and unhappy, because it is testing its endeavour; we stand and gaze across the barren vista of 1914–1921, and the sight is not good. We can see Oxford Street, as the architectural historian of a hundred years on will see it, unless we conspire to hide our shame by pulling it down. The architect of fifty remembers Regent Street as it was when he was a boy; its quiet simplicity and dignity, and its condition to-day. If the Renaissance has petered out into such horrors, such wild shriekings, what are we to do but go back to simple things, and the earlier tradition which led up to the rebirth of things classical. Is this a counsel of despair? Was the mediæval period a real dark age, without any light or glimmer of the Greek spirit?

If we exercise this fearsome gift which the war has conferred on us, of testing all effort, how do the Georgian houses, like Blenheim, Houghton, Holkham, Harewood, or Stowe, commend themselves to us? Putting the profiteer swollen with pride on one side, can we conceive any one sane man building such a house for his family? It is an impossible idea. The final test of a house is that some man should desire to live in it; the large Georgian house has arrived at that period when it is a white elephant which no man desires.

If we take the pre-Georgian houses, then they are indissolubly mixed with the older stock, and owe their charm in some measure to the surviving traditions of the mediæval craftsman. Belton, Groombridge, and Raynham are human, homely, and English in character. Let us admit that just as we never designed a Renaissance church that was fit to worship in, so, if we omit the smaller vernacular buildings, we never built a Georgian house which an Englishman could live in at ease. The men of the eighteenth century were posturing snobs compared with those of earlier days, and stand confessed as such by the plans of their houses.

We should select from Mr. Tipping's book Fig. 351, the plan of Great Chatfield Manor, to show how much more democratic the plan of those times was in conception than those of the later houses. The room used as a dining-room now shows the beginning of the winter parlour of the sixteenth century—a place where the family could take their meals in the colder weather; but the hall remains for general use, and festivals, and a place of gathering. This fine central space is an impressive note in the mediæval plan, and connotes a good deal more than mere architecture. It shows that the retainers were still friends, and not banished to basements as servants unfit to be seen. The whole grouping of the offices, barns, and church is excellent. Fig. 349 shows the Manor from "Across the Moat," and the group of buildings conjures up a picture of a life lived within the walls that had a savour and sting which were healthy. Architecturally is there not something of the Greek spirit to be found here?

But enough. We refer our readers to the book, and we think that the only considerable service which Mr. Tipping has rendered is that he convinces us again what a peculiarly rich heritage we have in these particularly English houses.

C. H. B. QUENNELL.

English Homes, Period I–Vol. I. — Norman and Plantagenet, 1066–1485. By H. Avray Tipping. Published by "Country Life."

London University School of Architecture

The Senate of the University of London has adopted a new scheme of architectural studies under which the curriculum for the certificate course will be extended from two to three years, and for the degree course from three to five years. The five-year curriculum for the degree course introduces a new principle, which involves the recognition of the importance of practical experience in an architect's office. The first four years of the degree curriculum will be spent in the University School of Architecture, in lectures and studio work, with ample provision for visits to important buildings, and a scheme enabling the students during their vacations to measure and sketch old buildings. The fifth year will be spent

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DESIGN FOR A HOUSE AT DYNAS POWIS, GLAMORGAN.
TEATHER AND WILSON, FF.R.I.B.A., ARCHITECTS.

mainly in the office of an architect approved for the purpose by the university. The students will combine with this work in architects' offices a certain amount of work of a very advanced character in the University Architectural Atelier. This atelier has been organized with the two-fold purpose of meeting the needs of undergraduates in their fifth year, and also the needs of young architects who wish to pursue work of a post-graduate character. The University School of Architecture is under the direction of Professor A. E. Richardson, F.R.I.B.A.

Ministry of Health: Reduction of Housing Staff

Sir Alfred Mond, Minister of Health, has stated, in a written reply to Major Barnes, that he hopes to reduce the annual cost of the housing staff of the Ministry from £323,647 on June 20 last to about £70,000, this involving a reduction in personnel from 1,043 to 160.

The cost on June 20, he explained, was made up of £50,187 for permanent staff and £273,460 for temporary staff. The permanent staff included :—

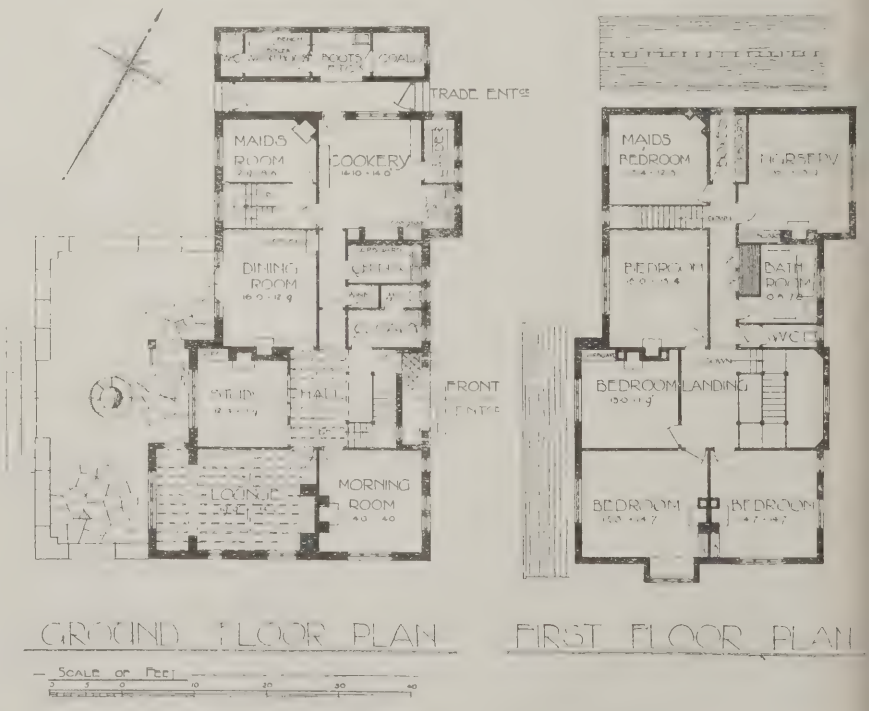
1 Principal assistant secretary	£1,200
1 Assistant secretary	1,100
5 Principals	3,740
3 Assistant principals	1,132
75 Clerks	12,756
7 Typists	763
1 Director of housing ..	1,200
1 Chief architect	1,000
2 Assistant architects	740
2 Inspectors	1,310
1 Deputy Commissioner ..	570
1 Assistant accountant general	875
1 Acting assistant accountant-general	850
3 Accountants	1,710
6 Assistant accountants ..	2,460
12 Examiners	1,836
12 Regional secretaries ..	5,700
11 Regional finance officers ..	6,230

The temporary staff included :

11 Commissioners	11,800
10 Deputy commissioners ..	7,950
15 Architects	11,600
28 Assistant architects ..	——
68 Surveyors and assistant surveyors	33,506
58 Inspectors	33,275
24 Sub-inspectors	9,228
286 Male clerks	58,846
47 Women clerks	7,424
118 Typists	17,097

Proposed House at Dyna Powis.

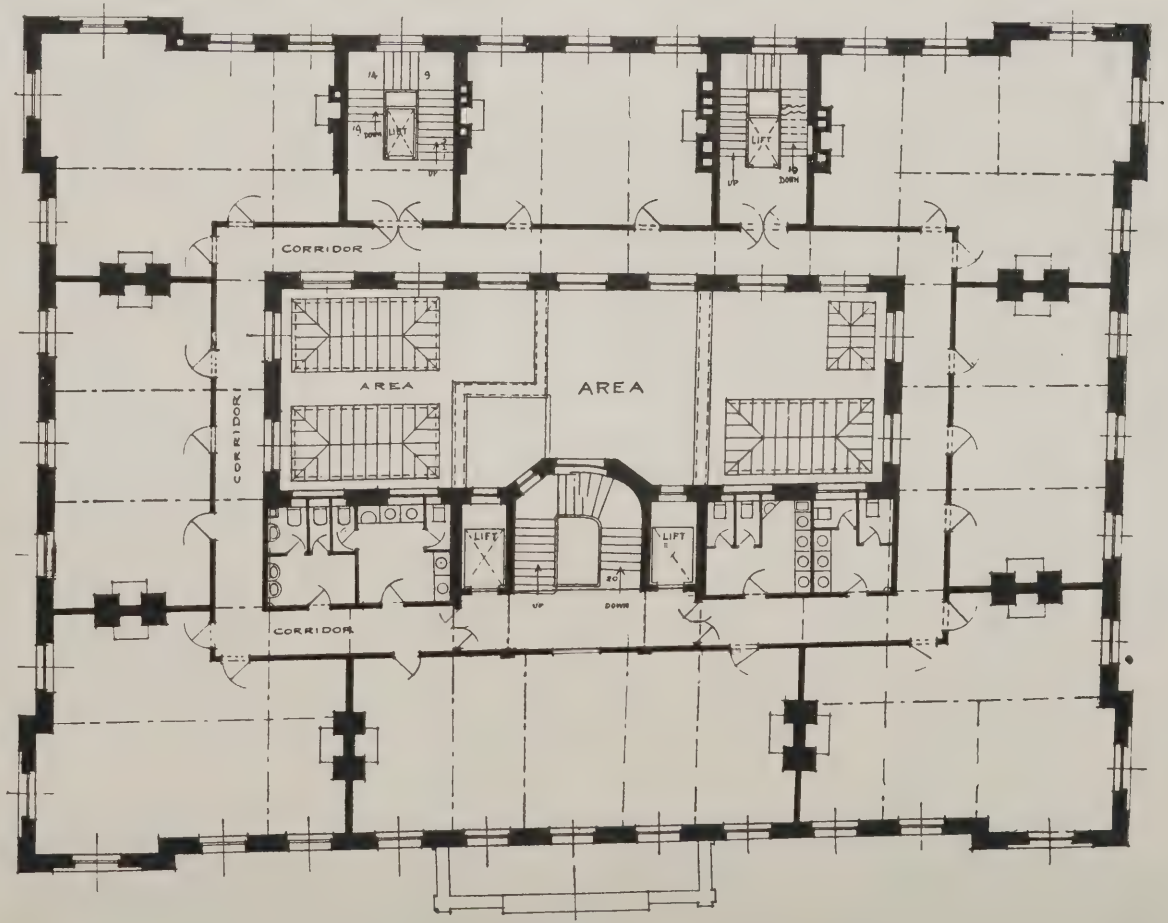
This house has been planned with view to securing easiness in workin and general compactness. All the princi pal rooms have a southern aspect. Th external walls will be faced with sma red bricks, with half-timber and rough cast above, the roof being of dun-coloure tiles. Oak is to be used for the stair case and the panelling in the hall loung and dining-room. For the lounge fire place old English facings will be use in conjunction with a dog grate.



PLANS OF HOUSE AT DYNAS POWIS, GLAMORGAN.

Current Architecture. 107.—New Building for Barclay's Bank, Ltd., Pall Mall East, London

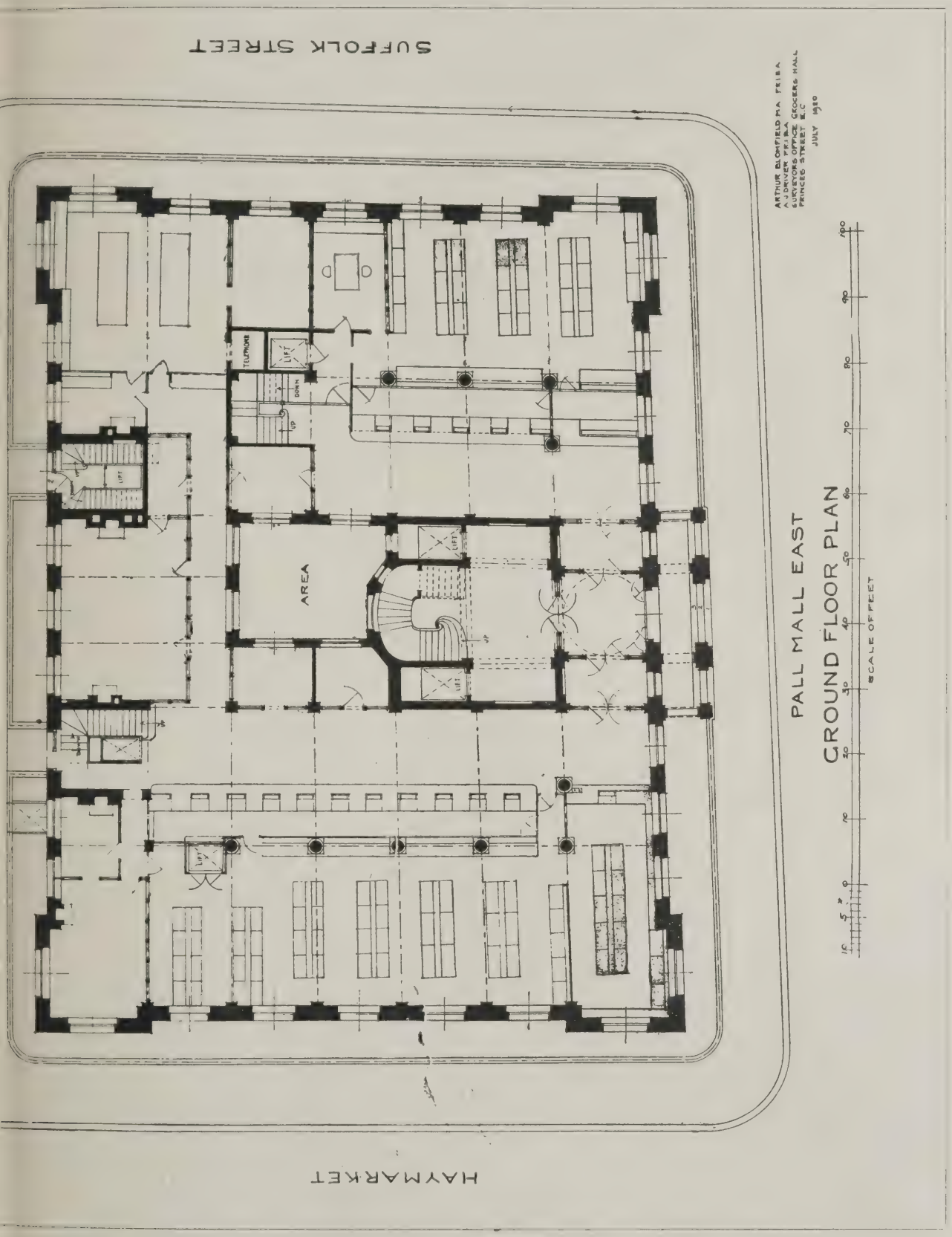
Arthur Blomfield, M.A., F.R.I.B.A., and A. J. Driver, F.R.I.B.A., Architects



UPPER FLOOR PLANS

10 5 0 10 20 30 40 50 60 70 80

SCALE OF FEET



The above plans should be studied in conjunction with the photographic and other illustrations of the building which appear elsewhere in this issue.

The Building Trades Parliament

THE annual meeting of the Industrial Council for the Building Industry took place at Montague House, Whitehall, on Thursday and Friday last week, with Mr. James Storrs, J.P., in the chair.

The first day's proceedings consisted mainly of a lengthy and distinctly acrimonious discussion on the report of the Education Committee, dealing with the apprenticeship question. It was a little difficult for the uninitiated onlooker to follow the trend of argument, but it was very apparent that wide divergencies of opinion existed among the delegates. Employers and operatives blamed each other for apathy and indifference, while both combined to revile the plumbers, who apparently wish to pursue their own educational scheme instead of accepting that propounded by the Industrial Council.

Persistent questionings from one delegate elicited the fact that the scheme on which the report was based had not yet been formally approved by the adherent bodies, many of whom had as yet made no reply, and it was resolved, on Mr. Forsdyke's motion, "That this Council finds that its propaganda efforts in support of this scheme, by reason of the fact that the adherent bodies have not so far given their formal support to this scheme and directed their constituents to put it into operation, are not meeting with adequate success, and therefore requests those adherent bodies to come together for the purpose of jointly issuing instructions to their constituents with regard to their attitude to the scheme, and requests the National Federation of Building Trade Employers to convene such a meeting."

The Education Committee's report, extracts from which are appended, was finally passed, with the exception of the recommendations with regard to the plumbing trade (not published), which were referred back for further consideration.

In May, 1921 (says the Education Committee), we received from the Ministry of Labour a report indicating the nature of the activities of the Training Department in connection with the scheme. We desire to place on record our appreciation of the work of the officers of the Department in promoting the local conferences which have been held in various centres throughout the industry.

Up to July 31, 1921, local conferences have been held in seventy-four centres. In the majority of the districts the scheme has been well received, and the necessary steps taken to establish the Local Building Trades Apprenticeship Committees.

We have had under consideration the difficulties experienced in organizing and attending the local conferences which have involved considerable activity on the part of the officers of the Committee. In this connection we desire to recommend :

(i) That an appeal be made to the Council for a greater effort on the part of the representatives of the industry in connection with the local conferences.

(ii) The secretary be authorized to grade the centres at which the conferences are held :—

Grade A : The principal centres.
Grade B : Less important centres.
Grade C : Centres of smaller population.

(iii) In this connection it is further recommended that :—

(*a*) Conferences in towns graded A and B to be addressed by the secretary or assistant secretary.

(*b*) Conferences in towns graded C may be addressed, in case of emergency, by the chief local officer of the training department.

(*c*) Efforts should still be made to secure the attendance of members of the Committee in *all* centres, whether graded A, B, or C.

Now that the scheme has been brought to the notice of the local representatives of the industry in a large number of centres, we have considered it desirable to make arrangements to "follow up" the local conferences. It will be recognized

The Dickins & Jones Building, Regent Street: Progress Photograph No. 6.



Higgs & Hill, Ltd., Builders.

This photograph has been taken by the courteous permission of Messrs. Henry Tanner, FF.R.I.B.A, and shows the condition of the work on July 30, 1921. Earlier progress photographs were given in our issues for April 13 and 20, May 18, June 22, and July 20. The steel framework is rapidly advancing, a portion of the basement and ground-floor fireproof floors are fixed, and a beginning has been made with the stonework to the front.

that a certain procedure has to be followed by the local associations of employers and operatives subsequent to a local conference and prior to the establishment of a local committee, and we were anxious that steps should be taken to maintain local interest during this period. We have arranged, therefore, for the local officers of the Training Department who have "prepared the way" for the local conferences to continue their activities subsequent to the holding of the conference, to keep in touch with the local representatives of the industry, and give whatever assistance may be desired in the establishment of the local committees.

It will be remembered that the authority of the Council to the local officers of the Training Department extended only up to the holding of the joint conferences in the districts concerned. We feel assured, however, that the Council will recognize the need for machinery for following up the conferences and to ascertain their ultimate result, and we submit the action we have taken for the confirmation of the Council.

In this connection we have had before us the analogy of the London Building Trades Apprenticeship Committee. We understand that this committee works in connection with the London Advisory Committee for Juvenile Employment of the Ministry of Labour, and for administrative purposes is regarded as a Sub-Committee of that body. It is understood that as such the London Building Trades Apprenticeship Committee has the use of the board-room for its meetings, and stationery and secretarial assistance provided by the Ministry. The Committee acts as an autonomous body, all matters relative to boys in the industry being within its purview and reporting to the London Advisory Committee for Juvenile Employment for their information.

Your Committee recommend that an effort be made to provide for similar arrangements to apply in regard to Local Building Trades Apprenticeship Committees generally, and submit to your consideration and approval the following resolution: "That co-operation with the Juvenile Employment Committees be established throughout the country, and that this Council desires the Ministry of Labour to give to each Local Building Trades Apprenticeship Committee, set up under the Scheme for Apprentices the same facilities as are accorded to other Sub-Committees of the Juvenile Employment Committees in the areas concerned."

We have received requests from local committees for copies of the indenture for the use of employers and apprentices being trained under the scheme. We recommend that copies of the Indenture be printed, with the necessary stamp included, and sold to local committees at an inclusive fee. We shall be glad of the Council's approval of this recommendation.

We appeal for the continued co-operation and goodwill of each individual member of the Council. We recognize, and feel assured that the Council also recognize, that putting into operation a comprehensive scheme of this character is no small task, and means a constant strain upon those who are actively engaged in the work. Members of the Council can render valuable assistance in their respective associations and districts, and we gladly acknowledge the support already given by certain representatives; but there is still much to be done, and we ask for more help.

We are engaged in examining the indenture in order to ensure that its terms are applicable to each craft in the industry; the syllabuses of instruction for the technical classes are being considered from the point of view of the needs of each craft, and clearly these are matters which call for individual attention by the representatives of the crafts concerned. The personnel of the Committee requires to be amplified to deal with these subjects, and we shall be glad of the assistance of representatives in these matters.

In conclusion, we wish to mention that the Eastern Counties Joint Area Council desire to put into operation in that area a scheme, based upon the scheme approved by the Council, but differing in certain fundamental features. We feel that this would be contrary to the intentions of the Industrial Council, and propose to again consult the Eastern Counties Joint Area Council in the matter. We believe that the Industrial Council will endorse our attitude in this respect, the only amendments that can be recognized in a local scheme being those necessary to make the scheme applicable to the local conditions in the industry, and only schemes conforming to this principle should receive the support of the Council.

A report of Friday's proceedings will appear in our next issue.

The Significance of the Art Instinct

As most of those who pass through our schools may be termed just ordinary persons, what they need to ensure an ordinary spiritual, mental, and physical development is an ordinary education, free from frills and garnishings; but the tendency to ignore fundamental principles, wasting valuable time and opportunity by soaring in the clouds, seems to be a fetish with many teachers.

In no type of school work is this tendency more pronounced than in the teaching of art, and if it were recognized that every pupil on making his debut to the drawing-lesson is endowed with what might reasonably be termed art instinct, there would be less inclination on the part of the teacher to attempt the impossible by practising methods that ignore the existence of latent ability, and leap across the chasm that separates art instinct from that elusive entity known as art culture.

The masses of our boys and girls need just enough art training to sensitize their minds to the beauties of nature, and enable their eyes to appreciate what is good in the world in which they live. They should be trained to see and detect, and promptly reject, all that offends the finer senses, and reject it before they become hopelessly committed to it. Early environment and outside influences doubtless endow many with modest misgivings regarding their own ability, and render them tolerant of the wall-paper bedecked with green carnations, the carpet bestrewn with vaporous-blue roses as big as cauliflowers, and the fireplace with tiled panels depicting a Dicke Christmas scene. All these incongruo medleys could be avoided if the a courses in our schools gave more recog tion to the existence of this art instin in the rising generation.

It is among the savage races that v find art which defies criticism, yet th have no schools and no training æsthetics; but just as the bird knows ho to build its nest, so does the Red Indi produce his blanket, the Zulu his shie and assegai, and the Kurd his exquisi rug. The art instinct that lies hidden the soul of the human race is given i chance in the savage; his ideas are n befogged by preconceptions and a b smattering of misdirected educatio He has never been told whether green an pink go together or not, but he finds ou for himself by blending them, and h handiwork vies successfully with th best art of our cultured and civilize world. Art instinct enables the savag to draw the right conclusion, and th result is a thing of beauty.

Educators are confronted with th grave fact that as at present conceive the art work in schools results in atroph from disuse of this faculty of art instinc Personality is being strangled, and the force that enable people to be guided by natura taste rendered nugatory. It seems to b the fashion nowadays, particularly when matters of art are concerned, to follo rather than to engage in good health self-expressional interpretation, but th matter of taste becomes a simple matte when we are trained and learn to marc behind the banner of common sens Good taste is never at loggerheads wit logic. There is always a logical and eve an ethical reason for every dictum of goo taste. For instance, what an amount o logic and beauty there is in the keyston of an arch, and how erratic and ridiculou the situation becomes when this emble of security occurs in an inverted arch!

The time is not long past when art wa classed among the educational fads; bu to-day, when an honest attempt is bein made to raise education to a higher plane the study of art has come to be recognize as an essential fundamental principl among the great problems of educatio The end is and should always be th development of an appreciation of beaut as one of our choicest gems of civilizatio

As the quest of beauty is inborn in th peoples of all races it must be conclude that the lack of its appreciation in ou community is due to the want of prope and sufficient nourishment during th period of childhood. It is not to b expected that the highest ideals ca appeal, or even be intelligible, to th majority, but that is no reason why th smaller number should be discourage from aspiring to the nobler purpose. A effort can at least be made to encourag in the masses the honest desire to culti vate the art instinct and the appreciatio of all things beautiful. And by beauti ful, not only that which can be visualize is meant, but also that which is conveye to the senses by sound, and all that whic signifies purity and sublime thought Upon a foundation conceived on thes lines it should not be difficult to erect a solid structure of general art appreciation and all the forces at the command of th educationist should be organized to bring such a groundwork into being.

GEORGE THOMPSON.

Details of Craftsmanship. 13.—Carved Frame in the Chippendale Style



The above frame is of carved mahogany, and is a modern piece—the work of a number of craftsmen in combination. Carving and drawing were by F. Rogers, under whose direction a certain amount of carving was also done by John Wilkie and George Percy, with J. Rowbotham as cabinet-maker. The frame was made for Messrs. Trollope and Colls.

onstruction. 20.—A Single Span Suspension Bridge

ROSS the Rio Chiriqui in Panama there is a suspension highway bridge with a single 410 ft. span. choice of structure is due to the tor-al nature of the river, and was ed at after a centre pier in course of truction for a two-span suspension ge had been washed out by a sudden of the stream.

x months after the contract was let he construction of the Chiriqui Rail- for the Republic of Panama, Mr. S. Zinn, who was then consulting neer to the Government, recom-ded the construction of a light wagon ge over the Rio Chiriqui, in order to ect a rich country east of the river the new railway about six miles west ne river. The project was approved, investigations were made at once to le on the situation and kind of bridge would serve the purpose for the next y years at the least possible cost.

ne bed of the river is full of boulders, to 6 ft. in diameter, making it impossible to drive sheet piling for pier foundations. At the bridge site the river slopes 150 ft. to the mile, and at time of high water the flow velocity is more than 20 ft. per second. The rainy season covers a period of eight months each year, during which time the rainfall is about 140 in. in an average year. The river has been known to rise as much as 15 ft. in a few hours, at the time of a heavy rain.

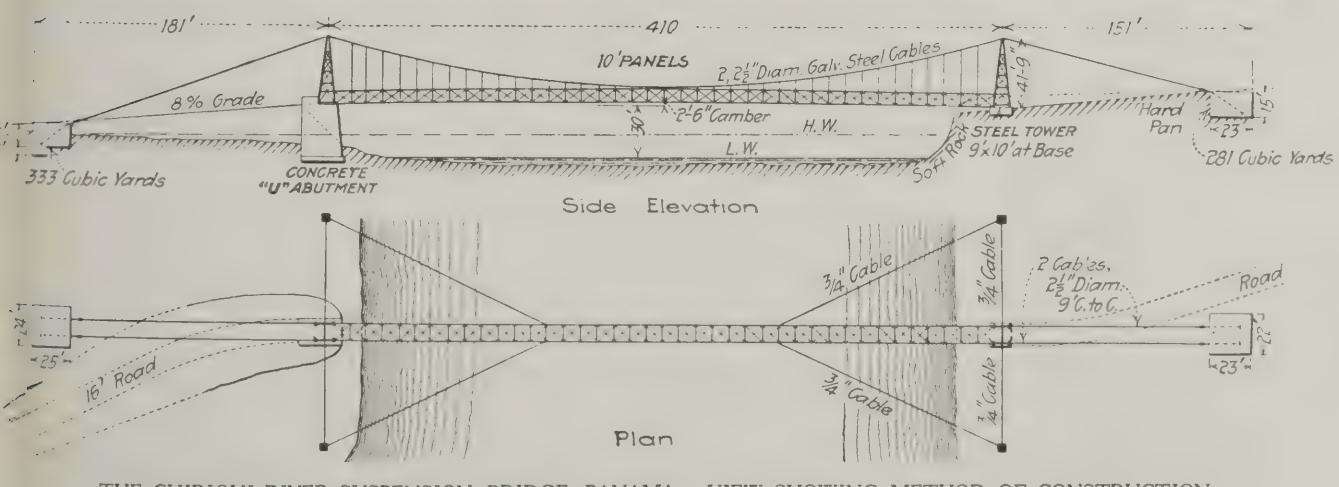
During the administration of President Obaldia the Government attempted, in 1909, to build a two-span suspension bridge near the present site. After the cables were delivered and the pier and abutments were completed, at a cost of about $10,000, a sudden rise in the river washed out the centre pier, and the work was abandoned.

In view of these conditions a single-span suspension bridge was decided on for the new structure. It was the consensus of opinion that the heaviest loads the bridge would ever be required to carry would be a drove of forty to fifty cattle or a ten-ton road roller. As the road roller would no doubt be the heaviest load on a panel, the bridge was designed accordingly, with the factor of safety of five.

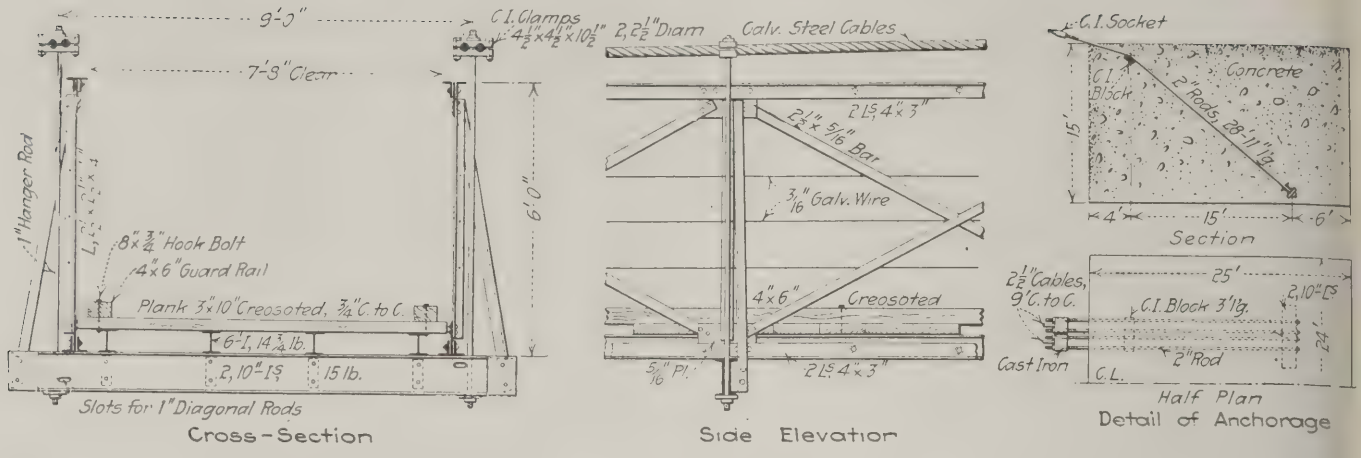
Transportation of bridge material, and the fact that it is almost impossible to secure experienced men to do field riveting on a small job in a new and isolated tropical country, were vital factors in the further design. So it was specified that erection was to be completed by using bolts and nuts, the nuts to be locked after every member was in its final position.

The steel was to be shipped from New York to Colon, 2,000 miles, reloaded on Panama Railroad cars and taken across the Isthmus to dock at Panama City, reloaded on a barge or light passenger boat, shipped 325 miles up the Pacific Coast to the new railroad dock at Pedrigal, reloaded on flat cars, and hauled 4½ miles to David, and finally loaded on





THE CHIRIQUI RIVER SUSPENSION BRIDGE, PANAMA: VIEW SHOWING METHOD OF CONSTRUCTION, AND PLAN AND ELEVATION OF BRIDGE



THE CHIRIQUI RIVER SUSPENSION BRIDGE, PANAMA: DETAILS OF CONSTRUCTION.

two-wheel ox-carts, and hauled over very bad roads 7½ miles to the bridge site.

The original plans were made by Mr. Zinn and handed to Messrs. R. W. Hebard & Co., the contractors for the construction of the Chiriqui Railway, with instructions to do the grading and all work pertaining to the completion of the bridge in connection with their railroad work. The plans were submitted to the American Bridge Company, whose engineers, while following the general plan as submitted, made a number of changes in the details. Big improvements over the original delays were made in the hanger-rod connections, the towers, and the anchorages. In place of making the 8 in. H-section posts of the towers in one piece, 42 ft. long, they were made in two, with connecting plates riveted to one post, ready to bolt to the other during erection.

The most difficult transportation item was moving the four 2½ in. cables, each of which, with end sockets attached, weighed about 4½ tons, including the reel. To be able to haul the cable reels over the 7½ miles with safety, it was found necessary to strengthen the floor system of a 230 ft. suspension bridge, build several culverts, and repair the wagon road. The trip was accomplished, however, without serious incident.

When the masonry was completed with anchorage rods in place, the steel towers were first erected. Then two ¾ in. steel cables were stretched over the towers, with ends fastened at the anchorages, to serve as carrier ropes for the permanent cables. One of the 4½ ton reels was now mounted in front of the anchorage, turning on a temporary axle. The socket at the outer end of the cable was lifted by rope tackle to the top of the tower, and then pulled across by hand windlass to the other anchorage on the ¾ in. cable with a 2 in. manila rope attached to casting and sheave. As soon as the socket was fastened to the opposite anchor rods, the socket at the reel was also connected to the anchor rods, and the cable was stretched to proper sag by tightening up the anchor-yoke nuts.

By the same process each cable of the four was put in place, and all were adjusted to the same sag, a little above final position at centre to allow for additional sag under the floor dead-load. The bridge was calculated to have a 3 ft. camber, but after receiving the full load it settled down to a 2½ ft. camber.

It is difficult to estimate exactly the dead-load sag in bridges of this kind. In erecting the 600 ft. suspension bridge across the Panama Canal in 1909, 2 ft. more sag was obtained than expected; yet the span retained sufficient camber to give it a fine appearance.

The towers are stayed laterally by ¾ in. steel guy cables, as the drawings indicate. The floor of the span has two ¾ in. guy cables on each side, well anchored into concrete. These side guys, together with the steel stiffening trusses and the continuous floor system (6 in. I-beam stringers well spliced, and 4 by 6 in. wooden guard-rails bolted and spliced) make the bridge almost rigid. Even in a strong wind, or with a heavy load passing over the bridge, there is very little vibration or oscillation.

Under conditions similar to those prevailing in the case described, Mr. Zinn believes the suspension type of bridge is the easiest and quickest to erect, as well as the cheapest. For the next thirty years the Chiriqui bridge will answer all purposes for which it was built. The only cost for maintenance will be renewal of the wooden floor and repainting of the steel.

For the foregoing particulars and illustrations we are indebted to an article by Mr. A. S. Zinn in an American contemporary, "Engineering News-Record."

The R.I.B.A.

Associates Committee.

As a result of the meeting of Associates of the R.I.B.A. held on June 7 last, the following Committee was appointed to consider the Unification and Registration proposals: Messrs. Stanley Hamp (Chairman); L. H. Bucknell and H. G. Fisher (Hon. Secretaries); H. W. Cubitt, W. R. Davidge, J. L. Elkington, K. Gammall, P. W. Hubbard, S. H. Loweth, A. W. Sheppard, J. D. Scott, M. Waterhouse, and H. A. Welch, together with the undermentioned as representatives of allied societies: Messrs. J. H. Worthington (Manchester), L. B. Budden (Liverpool), A. L. Snow (Birmingham), and J. I. Jones (Bristol and South Wales).

Other allied societies have been asked to send representatives so that the report should be as representative as possible of the feelings of the Associates throughout the country. Several meetings have been held, and the Committee hopes soon to complete its report.

Memorandum No. 52.

Mr. Arthur Keen, hon. secretary the Royal Institute of British Architec writing to "The Daily Telegraph" say "A memorandum has been sent by t Ministry of Health to the various housi authorities stating that the fees abandoned plans set out in Memorandu No. 52 have been agreed by the Ro Institute of British Architects. T statement is premature, the fact bei that the Ministry were informed that t terms in question would have to brought before the general body members of the institution for adopti At the general meeting held for t purpose Memorandum No. 52 was approved, and as it appears that in ma cases the housing authorities are p ceeding to act upon this memorandu I shall be very glad if I may have y help in making it known that at pres the terms of Memorandum No. 52 not agreed."

Competitions Committee.

The Council of the R.I.B.A. ha appointed the following members to se on the Competitions Committee session 1921–1922 :—

Professor Patrick Abercrombie.	Mr. F. Winton Newma
Mr. W. H. Ansell.	,, R. M. Pigott.
,, Henry V. Ashley.	,, William A. Pite.
,, G. Leonard Elkington.	,, T. Taliosin Rees.
,, L. Rome Guthrie.	,, J. Douglas Scott.
,, E. Vincent Harris.	,, Septimus Warwick
,, Arthur Keen, (Hon. Secretary, R.I.B.A.)	,, Paul Waterhouse (President, R.I.B
,, H. V. Lanchester.	,, Herbert A. Welch.
	,, W. G. Wilson.

At their first meeting the commit appointed the following officers: cha man, Mr. W. G. Wilson; vice-chairm Mr. H. V. Lanchester; hon. secretar Messrs. Henry V. Ashley and Herb A. Welch.

Housing Progress in Scotla

The following figures show the progr made in State-aided housing schemes Scotland to July 31, 1921: perman houses completed, 2,227; tempor houses completed, 547; reconstruct completed, 67; houses built under private subsidy schemes, 679. To 3,520. In addition there are 12,(houses under construction, of wh 1,703 are being built with the aid of Government subsidy to private perso The total amount of subsidy paid out the Scottish Board of Health in resp of the 679 houses completed under private subsidy schemes is £164,970.

hepstow's Garden Cities Revisited.

correspondent has recently revisited garden cities which grew up round epstow in connection with the national oyards towards the close of the war, l have since been completed. It was f feared, when the Government dropped great scheme of national shipyards—end of the war rendering these no ger necessary—that Bulwark, Hard-k, and the other model housing emes started on both banks of the Wye ght be left stranded and deserted. ppily they have been spared this fate the Monmouth Shipbuilding Company, ich took over the Chepstow yards from Government last year, and have ently bought the three villages of rdwick, Bulwark, and Pennsylvania their workpeople. The price paid, understand, was £400,000 for some 475 ises.

The village of Bulwark, like all the using schemes in the Chepstow dis-ct, has been built throughout with Vinget" blocks. Bulwark offers an cellent example of the rich variety of atment to which concrete lends itself der this system in the hands of a skilled signer. If any housing committee ks an object lesson in modern cottage nstruction it cannot do better than pay isit to Bulwark and its neighbourhood. Our correspondent writes to the effect at, although most of the houses have en lived in for two or more years, they as spick and span to-day as when they re built. The rents at Bulwark range from 9s. to 25s. per week, including rates. The better-class houses are placed with their south fronts overlooking the magnificent panorama of the Wye, lying six feet below, with the Severn in the distance. These houses are staggered on plan so that each enjoys a clear view.

The contractors were Messrs. Henry Boot and Sons, Ltd., of London and Sheffield, who also built the large military hospital at Chepstow, at present used by the Ministry of Pensions for shell-shock cases. The architect for the whole scheme was Mr. Henry E. Farmer, F.R.I.B.A., now Housing Commissioner for the Birmingham area. A typical group of houses is illustrated on page 210.

Concrete Roads.

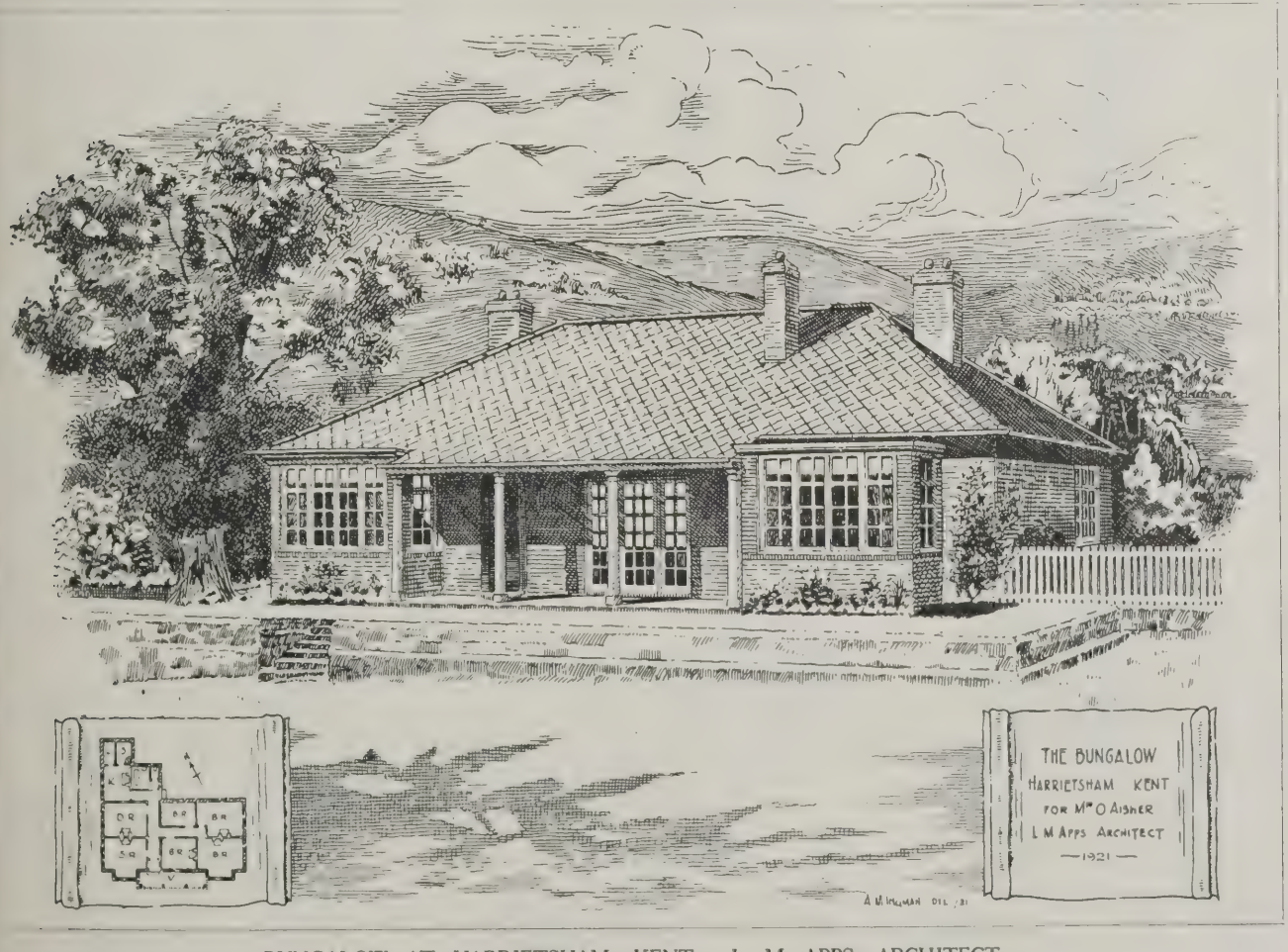
A reinforced concrete road is in process of construction on a section of the new "arterial" London-avoiding road at Willesden. The concrete is 8 in. thick, laid on a mattress of steel bars and wire which is made up on the spot. The concrete is mixed, spread, and surfaced to contour by machines which work quickly and with little labour. The concrete after tarring and gritting will constitute the road surface. This road is on the plan advocated by Messrs. Brodie and Humphries—two carriageways each 26 ft. in width, and a centre strip 20 ft. wide, which may be utilized later as a high-speed tramway track, or specially paved and reserved for other high-speed vehicles. The Walker Weston system of reinforcement is being used.

Quick Job by British Workmen.

That English workmen can "hustle" as quickly and to such good purpose as their oft-quoted rivals, the Americans, has just been proved by a "lightning job" executed at 75 and 76 Wells Street, Oxford Street, London, where an old warehouse was transformed into new offices and a show-room for a building corporation in two days.

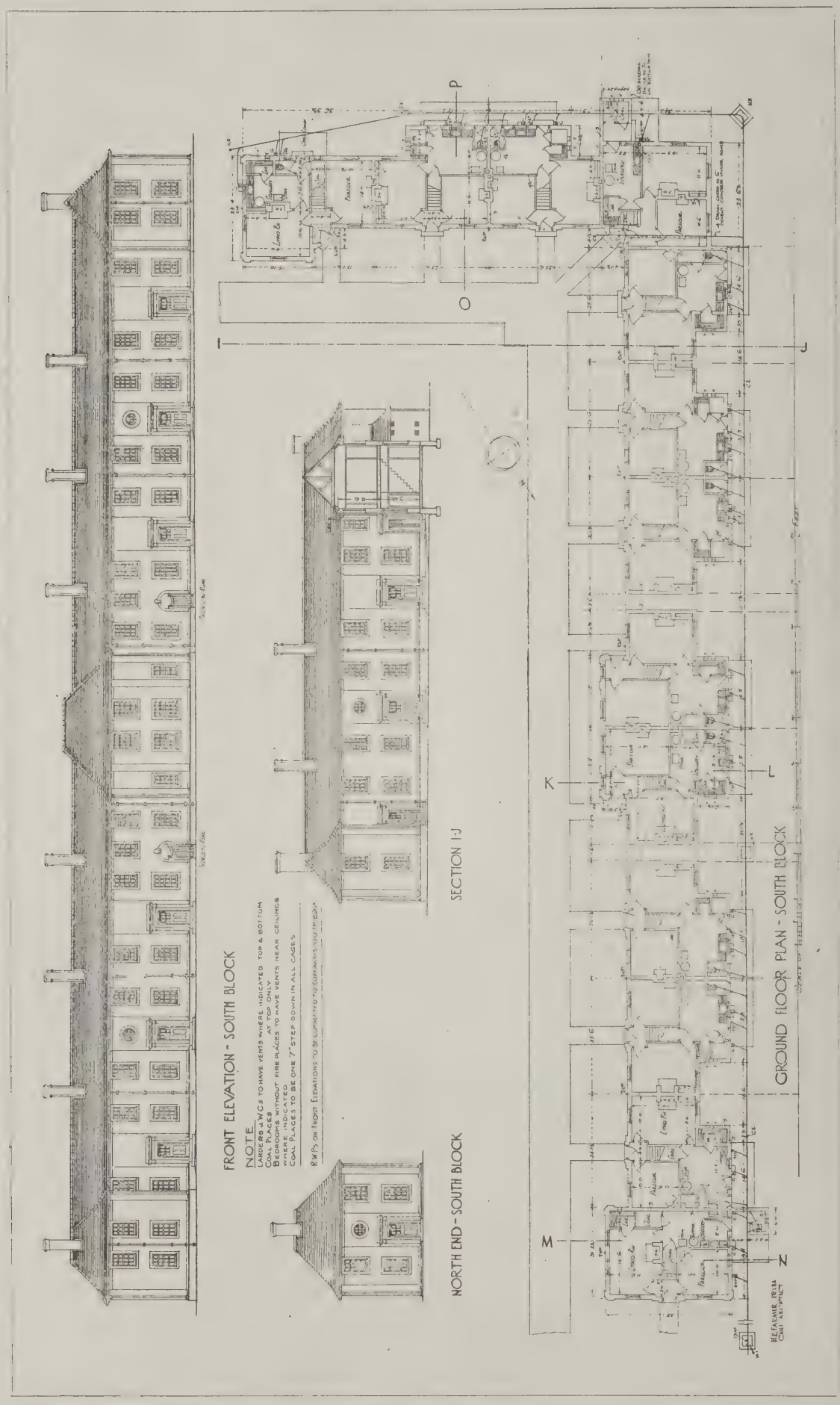
Possession of the building was obtained on a Thursday, and by midnight a "lightning gang" had been installed, who, by the light of flare lamps, at once began the work of dismantling. As the walls were cleared so they were made good; and before the plaster was dry, it was coated with distemper or paint by means of spraying machines. The broken floors, window-frames, and stairways were repaired, and joiners immediately followed on affixing the partitions to form the offices. Meanwhile the wiring for electric lighting and bells was run up and the ceilings whitewashed. Outside, the walls were scraped and repointed, the roof made sound, and broken windows re-glazed.

The gang worked continuously for 48 hours; individual workers snatching now and again an hour's repose. By Monday the premises were ready for occupation. The work was a triumph of organization—planning, delivering, and setting of tasks; "feeding" the various tradesmen with materials just when needed, preventing overlapping, and co-ordinating the sequence of jobs.



BUNGALOW AT HARRIETSHAM, KENT. L. M. APPS, ARCHITECT.

The above bungalow is of brick construction, with 14 in. cavity walls and red "Uralite" slate roof. Four bungalows of this type are being erected.



ROW OF HOUSES AT BULWARK GARDEN VILLAGE, CHEPSTOW. HENRY E. FARMER, F.R.I.B.A., ARCHITECT.

(*See Notes on preceding page.*)

The Week's News

Housing at Folkestone.

The scheme for the erection of 200 ises—167 have been built—is to be npleted by the Corporation.

Coseley Housing.

The Ministry of Health has sanctioned loan of £51,923 for the erection of ellings.

Stratford Theatre Rebuilding Scheme.

The portion of the Theatre Royal, atford, recently destroyed by fire, is be rebuilt.

Wrexham Housing.

The U.D.C. have received the permis- n of the Ministry of Health to erect 22 re houses.

Heywood Housing Scheme.

The Housing Committee are recom- nding the acceptance of the tender of Building Guild for the erection of hty-eight houses at Barley Hall.

Brandon Housing Architects.

Messrs. Hays and Gray, of Wingate, hitects, have been appointed housing hitects to the Brandon U.D.C. at a ary of £500 per annum.

New Thames Tunnel.

t is proposed to construct a new rail- y tunnel under the Thames between avesend and Tilbury at a cost of 000,000.

Mansion Destroyed by Fire.

The mansion of Mr. W. A. Simpson ichcliffe, situated in Cragg Vale, six es from Halifax, has been destroyed by e. The damage is estimated at £150,000.

storation of a Fourteenth-Century Chapel

A fund has been started for restoring Lovekyn Chantry Chapel at Kingston- Thames, which dates back to 1308, l is probably the oldest building in the wn.

Housing in Lanarkshire.

The Lower Ward District Committee Lanarkshire have accepted tenders for houses at a total cost of £223,629. ese are three and four apartment houses h stone fronts and gables, and brick cks. The average price of each house 816.

New Church Hall for Becontree.

t is not possible yet to begin the erec- n of a church at Becontree in memory Bishop Stevens, but the Bishop of elmsford hopes to arrange at a cost £5,000 for the building of a hall, which be used until something better is vided.

Norfolk War Memorial.

A memorial to the 6,000 men of the rfolk Regiment who were killed in the r consists of five pairs of double cot- es, built on a site overlooking Mouse- d Heath, Norwich, each pair being ned after one of the actions in which regiment was engaged.

New Delaval Mechanics Institute.

The New Mechanics Institute, erected n the designs of Mr. C. A. Clayton en, F.R.I.B.A., in the memorial ground at New Delaval, has been formally opened. The building is two stories, and has walls of rough-cast and a red-tiled roof

Aberdeen Housing Loan.

The T.C. have applied to the Scottish Board of Health for a loan of £200,000 to meet estimated expenditure at Torry Housing Scheme. The houses number 156, representing an outlay of £166,750. The expenditure on roads is £12,970, and architects' and measurers' fees £8,000.

Holland Park.

A committee of London M.P.'s has further considered the question of Holland Park as a site for the University of London. The meeting was of opinion that the site should be preserved, if not for the University, for some Government purpose.

Architectural Assistants.

Professor A. E. Richardson, F.R.I.B.A., is in a position to recommend students at the School of Architecture—the majority ex-Service men—who have completed their courses. Architects and others requiring assistants are invited to communicate with Professor Richardson at University College, London.

Housing at Taunton.

The Housing Committee are appealing to the Ministry of Health to approve tenders for the erection of forty-one houses. The Committee point out that the agreed number of houses required in Taunton is 500, and even if their request is granted the total obtained will be only 152.

Glasgow Housing Expenditure.

The Housing Department, in their accounts, show that the capital expenditure incurred during the year ended May 31 was £916,129 15s. 9d. A borrowing power of £2,000,000, to account of the capital requirements of the department, has been provisionally sanctioned by the Scottish Board of Health.

New Picture Theatre for Fraserburgh.

A new picture theatre has been erected at Fraserburgh from the designs of Messrs. George Sutherland, A.R.I.B.A., and Clement George, of Aberdeen, architects. The front elevation is constructed of granite, and the front entrance is flanked by two granite columns. There is a seating capacity of 1,100.

Shadwell Memorial Park.

The King Edward Memorial Committee has conveyed to the London County Council the site at Shadwell for a public park. It now remains for the Council to lay out the site, which abuts upon the river. The committee have arranged with Sir Bertram Mackennal to execute a suitable sculptured memorial of King Edward, to be placed in the park.

Alexandra Palace.

At the House of Commons a deputation from the trustees of the Alexandra Palace waited on the Middlesex M.P.'s and the members for Islington, Finsbury, and Stoke Newington, with reference to the condition of the building, which was in the occupation of the Government during the war. As a result the Chief Commissioner of Works is to be asked to restore the Palace to something like its pre-war state.

Timber Fire in London.

Following a demonstration by about 4,000 unemployed men a serious fire broke out at the premises of Messrs. J. Glicksten and Son, Ltd., of Carpenters Road, Stratford, E. The cause of the outbreak is unknown. The yard covered an area of 600 by 200 yards, and two-thirds of it has been destroyed, including two large buildings completely equipped as sawmills. One had only been completed a few months ago, and contained very costly and up-to-date machinery.

Putney Housing Scheme.

Sir A. Mond, replying to Mr. Ramsden in the House of Commons, said that the London County Council were arranging, with his concurrence, to modify the agreement with two contractors for the Putney housing scheme, and a payment of approximately £22,000 would be made by the Council in consideration of the reduction in the number of houses to be erected under the contract. The terms of the contract, which were prepared by the Council with the approval of the Ministry, did not provide for the abandonment of the work contracted for.

Housing and Building Materials.

Sir Alfred Mond has stated in the House of Commons that he had agreed to tenders being obtained for the erection of a further 300 to 400 houses at Newcastle. In view of the large number of houses contracted for at Middlesbrough, which were still to be completed, he had advised the local authority that their proper course was to concentrate at present on the houses already sanctioned, and to leave open the question of additional houses till those were nearer completion. Major Barnes asked if any house-building materials were held by the Government or on their account for disposal, and at what prices; and what had been lost on Government purchase contracts? Sir Alfred Mond, in reply, said he could not go beyond the information already given as to Government commitments. Nor was it in the public interest to make a detailed statement. No fresh contracts had been entered into for a considerable time.

North Circular Road.

The North Circular Arterial Road constitutes a part of the scheme of the Middlesex County Council for road improvement in conjunction with the Ministry of Transport. The total length of this route in Middlesex is 12½ miles, of which 7½ miles will be entirely new.

The lay-out of the new road is 100 ft. wide between fences, and as the site was formerly occupied by sewage filter beds, a special foundation to give the maximum degree of stability is being provided by a heavily reinforced concrete slab, 8 in. thick. "Walker-Weston" reinforcement is being used, the mesh being put together on the site in mats 24 ft. by 6½ ft., and quickly laid and connected up. When the full depth of concrete has subsequently been deposited, it is levelled and consolidated by a petrol-driven

machine running on bulb-headed rails which, if correctly set, guarantee both camber and channel being mechanically true. No expansion joints are provided in the carriageway, it being anticipated that any cracks which will arise will not, owing to the reinforcement, affect the wearing properties of the concrete.

The work in the Willesden area is being carried out by Mr. F. Wilkinson, M.Inst.C.E., the Council's engineer.

Trade and Craft

Change of Address.

The Publicity Organization of the General Electric Company, Ltd., has removed to Magnet House, Kingsway, London, W.C.2; Telephone No. "Regent" 7050, 50 lines. All correspondence intended for this department should be addressed to the "Publicity Organization."

SX Board.

Architects are invited by the Thames Paper Company, Ltd., of Purfleet, Essex, to send for samples and full particulars of SX Board, a material for interior linings for ceiling and walls. SX Board is claimed to be light, tough, rigid, and vibration proof, to possess great tensile strength, not to split or crack in handling or fixing, to be an excellent non-conductor, and quickly and easily fixed.

Road Reinforcement.

The last issue of "Road Reinforcement" (July) contains a number of brightly written and interesting articles. One of these, "Roads and Housing," shows how roads might play a greater part in relieving the housing problem. This function, it is pointed out, cannot be fulfilled until the roads are improved up to the weight and speed of modern commercial traffic. Another article, from the pen of Lieut.-Colonel A. T. Andrews, R.E., gives an instructive little survey of road development from the days of the ancient Briton down to the present time. In "Opposition to New and Improved Roads," another of the articles, instances are given of the curious views expressed in the past by persons who were opposed to plans for easier and freer communication. "Road Reinforcement" is issued occasionally in the interests of B.R.C. fabric by the British Reinforced Concrete Engineering Company, Ltd., of 1 Dickinson Street, Manchester.

"Decolite" Flooring.

Two interesting booklets, tastefully illustrated in colour, entitled "The Quest of the Perfect Floor" and "The Modern Floor," have been sent us by Messrs. Bell's United Asbestos Company, Ltd., of Southwark Street, London, S.E.1. Both of these booklets deal with "Decolite," a flooring that can be laid in several styles, for public buildings, factories, private residences, etc. The process of manufacture admits of "Decolite" being produced in brown, buff, a pleasant Indian red, grey, or black, but the most artistic and handsome effects of all are obtained by a natural combination of one or more of the colours with the grey, which has a veined effect claimed to be indistinguishable from fine marbles. The flooring may be laid with success on concrete, stone, wood, and other hard surfaces, and is cleaned and polished in the same way as wooden floors. "Decolite" flooring is in use by the Admiralty, War Office, India Office, and other Government Departments, and received the gold medal of the Franco-British Exhibition.

Coloured Door Knobs.

We have received a sample of the "B.G.L." standard door knob, a new production about to be placed on the market by The Birmingham Guild, Ltd., of Great Charles Street, Birmingham. The knob, being constructed of vitreous enamelled steel, requires no cleaning or polishing, and should be found eminently suitable for use in hospitals, operating theatres, laboratories, and for general domestic use. The sample in our possession is of a delicate mauve tint, but we understand that the knob can be supplied in practically any colour, and that it is also produced in brass, bronze, and gunmetal.

Latest List of New Inventions

Latest Patent Applications.

20482.—Eddington, C. — Interlocking moulded building block. July 30.

20064.—MacDonald, A.—Casement windows and fanlights. July 26.

20160.—Nowland, A. J.—Reinforced concrete slabs, etc. July 27.

20084.—Vermehr, J.—Building bricks, etc. July 26.

Specifications Published.

166623.—Christmas, W.—Concrete blocks.

166741.—Patterson, D. C.—Centering for concrete wall construction.

166753.—Hunt, J. F., and Caesar, L. V.—System of wall construction and building blocks thereof.

Abstract Published.

164769.—Stair-treads. — Frood, H., Sovereign Mills, Chapel-en-le-Frith, Derbyshire.—A reversible nosing for stairs has thickened wearing parts connected by a thinner part adapted to fit round the stair-nose. Thin marginal extensions may be provided so that the nosing and the front edge of the stair-tread may be attached by one set of fasteners, the lower extension being folded. The nosing may be made of india-rubber or fibrous material bonded with cementitious material, such as india-rubber, phenolic resin, bitumen, or gums, and may be strengthened by metal plates or wire fabric. The thickened portion may be formed during the weaving, by doubling, or by stitching on separate pieces.

The above particulars are specially prepared by Messrs. Rayner & Co., Registered Patent Agents, of 5 Chancery Lane, London, from whom readers of this Journal may obtain all information free relating to patents, trade-marks, and designs. Messrs. Rayner & Co. will obtain printed copies of the published specifications and forward on post free for the sum of 1/- each.

Competition News

Paisley War Memorial.

War memorial. Premiums £250, £20 and £150. Assessors Sir Reginald Blom field, R.A., and Mr. D. Y. Cameron, R. Apply Town Clerk, Paisley.

Partick and Whitcinch War Memorial

War memorial for Victoria Park cost about £2,000. The successful com petitors will get the work. Second an third premiums £20 and £10 respectivel Apply Mr. James Arthur, Hon. Secretar 173 Byres Road, Glasgow. Closing da August 27. (Banned by the R.I.B. and S.A.)

Chelmsford War Memorial.

War memorial. Premiums £10 10 and £5 5s. Apply Mr. R. C. Knigh Secretary to the War Memorial Com mittee, Municipal Offices, Chelmsfor Closing date August 31. The Society Architects requested their members n to take part in the Competition wit out first ascertaining from the Socie that the conditions have been approv by the Council.

Wandsworth Park.

Laying out as a park and recreati ground about thirty-one acres of la between Garratt Lane and Buckho Road, Wandsworth. Premiums 100 g and 50 gs. Apply Mr. P. Dod M.Inst.C.E., Borough Engineer, 215 Ba ham High Road, S.W. 17. Deposit o guinea. Closing date September 5.

New Hospital Buildings at Cairo.

New buildings of Qasr el' Aini Hospi and School. Accommodation 1,225 be Assessor Mr. John W. Simpso PP.R.I.B.A. Apply, enclosing chec or draft for three Egyptian pounds, or equivalent in sterling, to the Secretar R.I.B.A., 9 Conduit Street, Londo W.1. Closing date for preliminary co petition October 3.

Birmingham Hall of Memory.

Hall of Memory. Cost not to exce £30,000. Premiums £500, £300, and £2 Assessor, Sir Reginald Blomfield, R. Competitors must have occupied offic in Birmingham for the past six month Closing date October 12.

Society of Architects' Licentiates' a Students' Competitions.

Quarterly Competition ending Octob 31, 1921. Measured drawings, consi ing of one sheet to one-eighth scale, o sheet to half-inch scale, and one sheet enlarged details. They must be deliver carriage paid, at the Society's offic 28 Bedford Square, W.C.1, by October together with the original sketches a notes. A first prize of the value of £6 6 and a second of the value of £4 4s., more than ten competitors send in th drawings, may be awarded, varied, withheld, at the discretion of the Coun The Architectural Scholarship, value £ for not less than three or more than fo imperial sheets of measured drawings a details, made between January 1 a September 30, 1921, of some building historic interest. Licentiates and Stude of the Society may obtain further deta from the Secretary at 28 Bedford Squa W.C.1.

Wednesday, August 24, 1921. Vol. LIV. No. 1390

THE ARCHITECTS' JOURNAL & Architectural Engineer

With which is incorporated "The Builders' Journal"



THE FORUM OF TRAJAN, ROME.

27-29 Tothill Street, Westminster, S.W.1.

Mosque of Sultan Ahmed, Constantinople



This mosque, erected in 1608-14, is one of the largest and finest in Constantinople. It is covered with twenty domical forms, besides various barrel vaults. The four piers under the dome are gigantic fluted columns, 18 ft. in diameter, and faced with marble masonry; but the circular form looks weak and lacking in rigidity, notwithstanding its enormous size. Another remarkable feature of the mosque is that it has more than three hundred windows to light its one vast chamber.

THE
ARCHITECTS' JOURNAL
27-29 Tothill Street, Westminster, S.W.1.

Wednesday, August 24, 1921 Volume LIV. No. 1390

Notes and Comments

The Horse Guards Improvement Scheme

WE are glad to note that the House of Commons has given its sanction to the Guards' Memorial Improvement Scheme, which has already been illustrated and commented upon in this JOURNAL. The scheme is so extremely well thought out, and the improvement that it will effect in Horse Guards Parade so obvious, that it would have been strange, though by no means unaccountable, if the project had been turned down by Parliament. As it was, there was a certain amount of opposition to it. Sir H. Craik moved an amendment declaring that no further alteration of the parade should be made without the assent of the House. He cordially agreed, he said, as to the desirability of the site, but what he objected to was the interference of the "pestilent hand" of the Office of Works with the simplicity and beauty of our parks. This is the conventional argument; but if it were only known that the "simplicity and beauty" of London parks are almost invariably manufactured, we should probably hear far less of it. Sir H. Craik added that since his views on the matter had appeared in "The Times" he had received many letters from artists and other persons expressing agreement with him. It is, of course, quite natural that there should be "artists and other persons" opposed to the scheme: "artists" because nothing is more likely to arouse controversy and to reveal wide differences of opinion among the artistic fraternity than a question of art (just as reverend gentlemen can squabble endlessly over a question of theology); and "other persons" because, being without technical knowledge, they are quite unable to appreciate a project at its true value. The remarkable thing is that the scheme should have aroused so little opposition. Can it be that the public is at last awake to the importance of order and seemliness in public places?

Labour's Lesson

Labour just now is in a chastened mood. During the past week several of its leaders, including Mr. Herbert Smith, Mr. Stephen Walsh, and Mr. J. R. Clynes, have taken occasion to administer well-merited rebukes to those who would change the course of events by violence. "We should not be deceived," said Mr. Clynes, "into employing ruinous methods of physical force for obtaining a mockery of working-class freedom. Democracy would soon collapse if it had to rest upon class armies and spies, and its death would be hastened by the starvation and economic failure which any revolution by violent means would produce. We live in a country (he added) where people have the right to vote for any social order or economic system they prefer." It is mainly through ignoring, or affecting to ignore, so obvious a fact as this last that labour finds itself in parlous plight to-day; and the deplorable thing is that, while labour suffers as a result of its own folly, all other classes of the community are to some extent affected. Labour, however, seems at last to have learned its lesson, which is that profound economic and social changes, if they are to come at all, must come by lawful means. Lightning strikes will have no effect beyond ranging the remainder of the community in a solid phalanx against the unions. That there is any need for revolution, even of the peaceful kind, we do not agree. It is yet to be proved that the present system, imperfect as it is, can be replaced by one any more effective. It may at least be claimed for the system in force to-day that it is extremely flexible—capable of adjustment, adaptation, improvement. Working upon strictly constitutional lines, labour may easily secure the realization of all its just aspirations; and we are glad to see that sanity has at last come upon the movement.

The Revival of the Road

"The old order changeth, yielding place to new." A few weeks ago we recorded the erection of the first motor-coach station in London—appropriately enough on the site of an old coaching inn. Now comes the news that one of the big livery stables of the West End is to be converted to the uses of vehicles that run by petrol. Horses, phaetons, drags, broughams, cabriolets, dog carts—all are swept aside to make way for the all-conquering char-a-banc. Simultaneously, "petrol-filling stations" are springing up by the wayside, and already several have made an appearance in London (one is illustrated in a later part of this issue). In a sense history is again repeating itself. Less than a hundred years ago the pessimists were mournfully wagging their heads over the new-fangled steam engines that threatened to drive the stage coaches off the road, little dreaming of the time when a newer-fangled machine would rise up to threaten the steam engine. Is the dominion of the railway drawing to an end? Possibly not yet; but that the competition of the char-a-banc is being felt is certain, if improved train services and the revival of "excursions" may be taken as indications. That the char-a-banc has come to stay there can be no doubt. Who would not go by road rather than by rail? Thus has the wheel of travel come full circle, and to-day, throughout the length and breadth of the land, the subjects of George the Fifth may revel in the delights of the open road—and, be it noted, under much more comfortable conditions than those that were familiar to the subjects of George the Fourth. The romance, perhaps, has gone. The sentimentalist will ever regret the passing of the four-in-hand, with its rubicund Pickwickian gentlemen perched aloft, and the post-boy tootling a lively fanfare on the horn. But romance had its drawbacks, which included badly constructed roads and the possibility of an unpleasant encounter with a highwayman. To-day our roads are, on the whole, well made (they will require a good deal of attention if they are to stand the wear and tear of the char-a-banc), and the motoring Claude Duval has not yet made his appearance. We may congratulate ourselves on enjoying most of the advantages of the old form of travel, and on suffering few of its drawbacks. The bearing of all this upon architecture and building is obvious. The wayside inn has again come into

its own—is, indeed, proving wholly inadequate for the demands made upon it. New and more commodious hotels are wanted. Garages must be built in large numbers. Petrol-filling stations will surely multiply by the score. On every hand must the new mode of travel mean a demand upon the services of the architect and the builder, who, needless to say, are ready and eager to play their part in the "revival of the road."

Registration—The Next Move

Architects returning from their holidays, and settling down (very reluctantly, we may imagine) to the trivial round, the common task, are once again turning their thoughts to matters of professional moment. Foremost on the list of things "for attention" are the complicated questions of Unity and Registration. By this time, no doubt, considerable progress has been made in the drafting of a scheme that will satisfy, or in any case not give offence to, the various parties and interests involved. This scheme, we imagine, will shortly be ready for presentation to the general bodies of the Royal Institute and the Society of Architects. Should it be accepted, it is to be assumed that a meeting of the Unification Sub-Committee will then be called to carry on the work. Up to date the complicated and delicate negotiations have been carried through with a minimum of apparent discord. This is due primarily to the tactfulness and sincerity of purpose of Mr. John W. Simpson, who, in Mr. Paul Waterhouse, has a successor after his own heart; and, in the second place, to a real desire for unity throughout the profession. We hope very sincerely that, when the whole question comes up for final settlement, it may be found that all outstanding differences have been composed.

The Traffic Problem

What is to be done about London traffic? Its condition has now become so utterly chaotic that only desperate measures can effect a cure. In all the principal thoroughfares a "block" of several hundred yards is a common sight every few minutes of the day; while the congestion on the bridges across the river has become a perfect scandal. The new Southwark Bridge has done scarcely anything to relieve the pressure upon its neighbours—for the simple reason that it leads, so to speak, "nowhere." The case of Westminster Bridge is really desperate. The traveller in bus or taxi who can get across it within the space of five minutes must consider himself lucky. The cause of the congestion is to be found on the south side, where never-ending streams of traffic—petrol, steam, horse, and electric—come together from four quarters to form a tangle of the most bewildering description. Waterloo Bridge is the only other bridge that serves the district to any appreciable extent, and this is far too narrow for modern requirements. We are not suggesting that it should be widened. Perish the thought! But something must be done to relieve the strain that is borne by it and Westminster Bridge. A new bridge for vehicular traffic at Charing Cross is absolutely essential, and there is little doubt that this project, which has been advocated scores of times in the past, must ultimately be realized. In the meantime we must put up with the congestion as best we may. To return to the question of the streets. What is to be done? To widen all the principal thoroughfares to an extent commensurate with modern traffic is out of the question; the expense would be prohibitive. Two alternative remedies are open—*i.e.* the improvement of the methods of traffic regulation, and the contrivance of either overhead or underground crossings at the principal intersections. With regard to the former, there is much room for improvement. The method employed by the London police of holding up a hundred yards or so of vehicles while other batches of traffic cross over at intersections is antiquated and wasteful of time and money. It is conceivable that the method of keeping both lines of traffic on the move, as practised, for example, in Manchester, might help considerably in reducing congestion. Often it has been very obvious to ourselves that th police interfere unnecessarily with traffic, and cause delay that need never occur. That traffic can regulate itself quit effectually was proved during the police strike of last yea Police abstention, however, while it might help to reliev the congestion, can never solve the problem. The onl effective remedy is, as we have already observed, the con trivance of underground or overhead roadways at stree crossings, so that both lines of traffic may be free of inter ruption. This system, we believe, is in operation in certai American cities, and, naturally, is found to work with com plete success. We feel confident that it could be adapte with equal success to the peculiar case of London. Some thing of the kind has already been done in London— there is Holborn Viaduct, for example. Here, of course the solution was obvious, and easy of execution. T construct a crossing where both thoroughfares are at th same level is, however, a different proposition. No doub it would be found most expedient not to sink, or raise only one of the intersecting roadways, but to alter th gradient of both—i.e., sink one and raise the other. W are confident that the work is not beyond the ingenuit of the civil engineer, working in conjunction with th architect.

A Remarkable Bridge

As a temporary means of communication between Ne York and New Jersey during the construction of a vehicula tunnel, which will not be ready for use for about five years the Americans propose to build a very remarkable bridg across the Hudson River. Partly borne upon a series o sixty wooden ships (acquired from the Shipping Board) and partly suspended from towers, each higher than Ne York's tallest skyscraper, the Woolworth Building, whic is 792 ft. high, the bridge will be nearly 6,000 ft. long, wit an average height of 40 ft. above water. The span between the supporting vessels will be of fabricated iron and there will be a drawbridge in the centre to allow th passage of tall-masted ships. Only America could con ceive a project so original in idea and so gigantic in scal It suggests interesting possibilities in relation to the traffi problem of London, which is discussed in another note o this page. A temporary bridge on the lines of that pro jected for the Hudson, though of course on a much smalle scale, erected somewhere in the neighbourhood of th Charing Cross railway bridge, would go a long way toward relieving the traffic congestion between the north and sout sides of the Thames.

The Fall in Furniture Prices

If houses are little if at all cheaper, furniture has at las come down considerably in price. The fall, we learn fro "The Manchester Guardian," has followed almost immed ately upon a general reduction of wages in the cabine making trades from 2s. 4d. to 2s. 0½d. per hour. There ha been a similar fall in the cost of timber, and, indeed, o almost every kind of material used in the making of furni ture. And as a result, according to the manager of a important firm in Manchester, the reduction in retail price amounts to a full 25 per cent. His firm formerly sold "four-foot" bedroom suite in oak—fumed or Jacobean—fo £36. It is now prepared to sell a suite of the same size of a new design which will employ somewhat less materia at £24 15s. That may be taken as an example of th lengths to which furniture manufacturers are prepared t go in order to persuade householders to buy. One' natural elation at the good news becomes, however, con siderably subdued by a later statement that "a great dea of the furniture is of poor, unseasoned wood"; that "firm which formerly prided themselves on their fine furnitur have turned in desperation to the cheaper branches o production." Dry oak still remains at four times its cos in 1914. Quality and cheapness never did go hand-in-hand and it is doubtful whether they ever will display themselve in that attitude of affection.

Architectural Causerie—Northampton: An Impression

LAST Saturday I stood in the spacious Market Square at Northampton, the finest of its type in England, having journeyed down by road to review the attractions of tower and steeple, stone and brick, hich I had not seen for this quarter of a century past. had come post-haste after refreshing my memory from ie description of the place as given in the Gazetteer for the ear 1810, which speaks of the place as "The capital of the ounty of that name, a handsome well-built town, in a very ealthy situation. Its principal manufacture is that of oots and shoes, of which many are made here, and in ther parts of the county, for exportation."

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But the impression the town made on my mind after uch a long interval was disappointing; there is little of ignity or grandeur in the newer aspect of the four narrow ain streets that meet in the Market Place and give inter-ninable perspective in each direction. So narrow are the ld streets that the tramcars have been designed on an special gauge, so cramped is local opinion that many a air house has been laid low in order that commerce should hrive near the centre. We buy Northampton-made boots vithout enquiring into the place where they were made; n like manner we purchase stockings from Nottingham. Most of us have an impression of both places gleaned from he corner seat of an express that skirts the assemblage of oofs; but as provincial towns form the backbone of the ountry it behoves us to understand their whims. No one nters Northampton without directly gravitating towards All Saints' Church, to see Sir Christopher Wren's portico of welve Ionic columns, and to note the delicacy of the open oluted capitals.

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In the year 1680, when Sir Christopher was adding the wings to Easton Neston for Earl Pomfret, King Charles II gave of his bounty "one thousand tuns of timber and seven years' chimney money towards repairing and beautifying All Saints' Church." So pleased were the townspeople with he King's gift that Sir Christopher was asked to introduce a statue of the Merry One in the centre of the balustrade. And thus it came about that Charles in stone, looking short, stocky, and puked in Roman dress, surveys the doings of to-day. Sir Christopher beyond question was the architect for the loggia and the internal fitments and decorations, but the lettering on the entablature states that John Hunt of Northton. fecit. I was grieved to find that the local war memorial has taken form in a new Lady Chapel attached to the chancel of All Saints'. This building, which aims at expressing King James's Gothic, does not fit in with the ensemble, and the fact that Wren's panelling in the chancel has been taken away does not make for respect, neither does the building gain by this addition.

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Northampton on a Saturday is a sight worth seeing, for it is then that the booteries are at rest and the fields near the Ouse prove that even the school for leather needs seasonable playing hours. From the villages for miles around carriers' carts have crept in during the early morning, bearing traces of dust and travel. Some of the carriers belong to another age—so do the carts—but the horses can claim proud descent, at least some of them can, from the large black breed of the eighteenth century. Also the numerous hostelries are witnessing yet another change. The carriers are buying motor lorries in order to move with the times; but these cannot escape the dust and toil of road travel, and at a distance the illusion of the inn-yard with vehicles at rest is kept up.

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One expects some style and dignity in a town of 92,000 people with traditions going back to the Danish occupation, and earthworks thrown up by the engineers of Cromwell's army. Except in the old buildings there is little of absorbing interest. Everything to-day, from the architecture to the goods on the stalls, has coarsened and lost quality.

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The county that holds such mansions as Abington Abbey, as Althorp, Aynho, Brixworth, Burghley, Carlton Hall, Castle Ashby, Dallington, Delapre, Horton, Harlestone, Kelmarsh, Lamport, Milton Abbey, Rockingham, Sulby, Wakefield, Wicken Park, and the rest of the larger-sized, besides great houses and manors dotted everywhere about the fine grazing lands, must reflect its treasures in the county town. This, to a certain extent, is true, for near the Market Place stand several fine square-built stone town-houses without compeer in the sister towns of England. The tradition of working stone in the Palladian vein was almost as well established at the beginning of the eighteenth century as working leather. In fact, the ability to afford a worked stone house with quoins at the corners, a continuous parapet above the cornice, ramps to the chimneys, a square bay projecting over the pavement supported on a pair of Doric legs, the latter compelling foot-passengers of every degree to ascend a ramp on one side and descend on the other, represented *in toto* the ability of the merchant to control the leather market. The Sessions House is a handsome building of experimental Classic—that is to say, it belongs to the days when things were expressed in a rich Corinthian way, with ornament of fruity shaping. The Shire Hall adjoining has elliptical pilasters, or, as the old books would have it, scheme columns. Elliptical pilasters are such rare things as to cause me to remark that the only other town in England where such diversions are to be seen is Luton, in Bedfordshire, where they grace the doorways.

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Among the later buildings there are a number of excellent nineteenth-century banks, a rare Exchange building, which has been turned into a cinema, much to the astonishment of the Ionic capitals, which have, by the way, a turn peculiarly Hellenistic. The design of the nineteenth-century hospital is clean-cut, and so is the gaol, which was built in 1793 on the principles advocated by Howard, who came over from Bedford to see his theories put into practice.

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In Northampton the architect-collector can pick up bargains. There are several excellent bookshops. Mahogany tables of Sheraton type stand in the Market Place awaiting a purchaser; at least this was the case on Saturday last. In the antique shops you may encounter double-bass stringed instruments of enormous proportions. There are leather fire-buckets from the great houses discarded since the introduction of up-to-date fire-fighting appliances. There are fenders, fire-irons, double-shaded candlesticks from the tables of temples and gazebos, lamps from post-chaises and coaches that have journeyed down the road long since, and have left such accessories in musty stables to be rescued by those who have a taste for trifles.

There is one consolation about this town of leather—things wear well. Cromwell House has worn well, but I am not pleased with the restoration of the central gable. Wren's loggia attached to the old tower and fabric of All Saints' Church has worn well. It is to-day the most striking feature of the town's personality. Yet the new chapel does not please my sense of fitness. In this town where the old lingers on and the blatancy of the new irritates, you will meet with many pleasant surprises. For examp there is a railway booking office in the Market Squa managed by Mr. Frisby, that has connections with t coaching period; in fact, it only remained for the propriet to change the name from "road booking" to "rail booking to make the alteration. There are the coaching prints, t old time tables, the road books and the maps.

AERO.

The City of the Future

An Imaginary Incursion Into the Twenty-first Century

IT is midnight in mid-winter. The countryside is wrapped in the black mantle the moon puts on when she turns her scornful back upon the world. Yet the sky is pin-pricked with strange lights that come and go, and there is a throbbing in the air like the beating of the wings of giant birds. Suddenly we see a great air liner, outlined in light, moving swiftly westwards.

"She's nearing home," says my companion. "That's the guiding searchlight from the mooring-mast at Blankstown. Would you like to have a look at it?"

As I did not feel like sleep I accepted the offer, and we passed indoors and up to the flat roof where my friend's run-about plane was housed. It was a handy little two-seater with a speed of 150 miles an hour. We were soon off, rushing towards the distant city. Our strong headlight cut the blackness like the sharp, pointed blade of a spear. In the upper air it was icy-cold, but snugly sheltered in our small cabin we were warm enough. As we neared the outskirts of the city the blackness grew less dense. Great flares from high towers made in mid-air a dazzling belt of light. Below and above the light died slowly down to darkness. It was an uncanny experience this, for seen from afar it looked for all the world like a city in the clouds, suspended by some magic high above the earth.

The mooring-mast stood at the side of an imposing sky-scraper whose roof was bathed in a soft lake of light, all the softer by contrast with the aggressive glare of the guiding flare on the mast itself.

As we drew near we saw the giant liner at rest, moored to the mast and moving slightly to the wind. The passengers passed through its nose straight into a lift and so into the air-station hotel. Some stayed on the roof, while others crossed to the air cables which linked up the main buildings of the city. It was an arresting scene. For miles one could see great mooring-masts stabbing the blackness with blinding light. And just below them roof after roof made the night like day. These roofs were like a city in themselves. All the night life of the town could here be seen, like the hanging gardens of Babylon, spread out in mid-air. And, in between, twinkling points of light passed to and fro like fire-flies in the night. They were the cable cars that, with their ceaseless activity, told mutely the story of a city that never slept.

We landed on the landing-roof of the hotel. It was like a garage with lock-up sheds for the planes. From the sheds a rambler-covered pergola led to the main roof, which was large enough to house a fair-sized village. Indeed, with its many buildings, its cabaret and cinema, restaurant, writing-room, sleeping quarters, and gardens, it was a self-contained community. Some of the people sitting in the cabaret, I was told, had used the hotel for years, but had never been below the roof.

And of those who had, the majority worked in the offices and shops to which the lower part of the gigantic building was given. The hotel building was a complete township. A man could do all his shopping and all his business, and get all his pleasure and sport, and make his home, within its towering walls. From the air-station at the mooring-mast he could sail out to any part of the world. In t wireless-telephone room he could talk to friends a business acquaintances thousands of miles away.

And many men only knew their city as it appeared fro the roof of their own home—only knew the world as appeared from the air. Even if they travelled—and ever body travels now—they kept the roof habit.

. . . . . .

This city of roofs so fascinated me that I decided to sle at the hotel to see the town by day. When I awoke a strolled out upon the roof I was not disappointed. It w a wonderful scene. The buildings were massive and m jestic. They had all the solemn dignity of bigness—dignity that even bad architecture cannot altogether spo The styles were chiefly Gothic, though there were so arresting examples of the Byzantine adapted to the nee of the twenty-first century. And one or two of the buil ings suggested the popular idea of the Tower of Bab Every one had, as a sort of spire, a mooring-mast that that height and against the gigantic main building look like a delicate fairy-tower. In between the buildings we large open spaces laid out as gardens, which in the summ I was told, were like splendid carpets patterned in flowe planted by the thousand to give the full effect of mass colours as seen from high in the air. The air was fre and clear, and there was no smoke. Coal, of course, h long since been ousted from the factories. The absence smoke made the brick and stone, the terra-cotta and t tinted concrete, look splendidly fresh. A scientist who h studied these matters informed me that town buildings no last twice as long as they did a century ago, while t absence of soot in the atmosphere has encouraged the u of mosaic and other methods of brightening the exteri walls. To this fact, and to the psychological effect of colo on character, he attributes the happier temper of to-day.

He also told me that in the twentieth century electrici had not come into its full use, that there was no labou saving such as we know, where the house-work is almo wholly done by touching a button. This fact had, l explained, revolutionized interior architecture. Before th century architects had other problems, unknown to us, face, such as the provision of fireplaces and chimneys, b they were not bothered with many fixtures. Now, course, practically all our furniture is a part of the hous While it has meant more work for the architect, it h added beyond measure to the æsthetic standard of o homes.

"The taste of the twentieth century," the scienti assured me, "was, on the whole, appalling. But then t people who had taste were not allowed to help those wh had not, and the architect's work was often spoilt becau his client furnished the house with articles chosen by hin self which did not agree with the spirit of the place. The is little chance of that happening now, because, as yo know, no one would think of furnishing without consultin the architect; and, in any case, as most of it is fixed an a part of the property, the architect gets there first."

CROSSLEY DAVIES.

Warren and Wetmore, Architects.

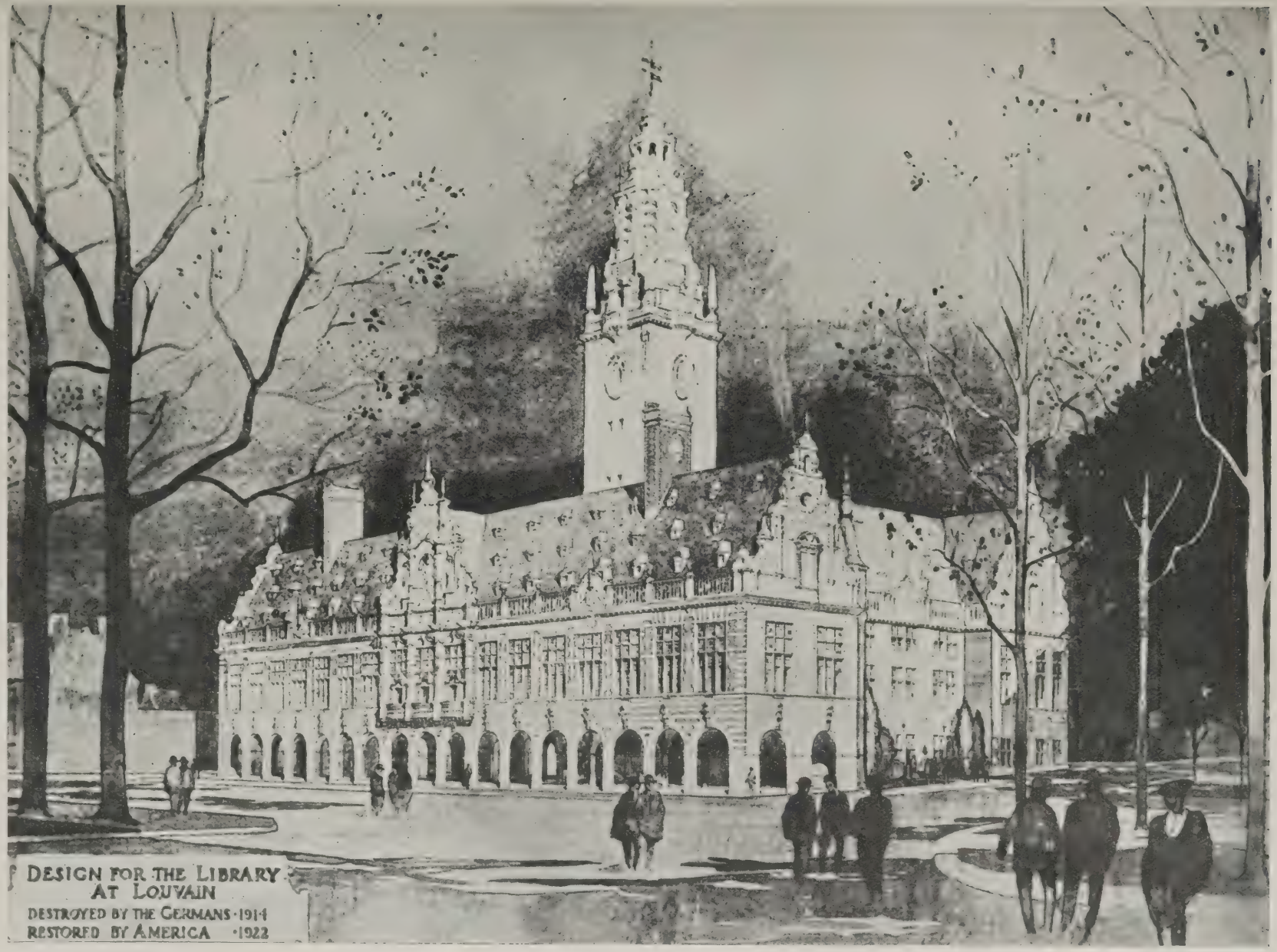


Photo: Topical

The foundation stone of the new Library at Louvain has just been laid by Dr. Nicholas Murray Butler (Chairman of the National Commission of the United States for the Restoration of the University of Louvain and President of Columbia University). The building is being erected out of funds raised specially for the purpose in the United States. Messrs. Warren and Wetmore have obviously been at pains to preserve in the new building the spirit and character of Flemish work.

Lighting in Factories and Workshops

IN January, 1913, the Home Secretary appointed a Committee under the chairmanship of Dr. Glazebrook (now Sir Richard Glazebrook, K.C.B.), F.R.S., D.Sc., to inquire and report as to the conditions necessary for the adequate and suitable lighting (natural and artificial) of factories and workshops, having regard to the nature of the work carried on, the protection of the eyesight of the workers employed, and the various forms of illumination. In 1915 the committee issued its First Report (Cd. 8000) dealing with the general lighting of factories. Further inquiry was then postponed till after the war. In November, 1920, the committee resumed its inquiries, and in January, 1921, Mr. C. Dampier Whetham, F.R.S., was appointed Chairman in succession to Sir R. Glazebrook, who felt obliged to resign the chairmanship owing to pressure of other work. The present constitution of the Committee is as follows: Mr. C. Dampier Whetham, F.R.S., *Chairman*; Mr. Leon Gaster, Sir Richard Glazebrook, K.C.B., F.R.S., D.Sc., Dr. C. S. Myers, C.B.E., F.R.S., M.D., Mr. J. Herbert Parsons, C.B.E., F.R.S., F.R.C.S., D.Sc., Miss R. E. Squire, O.B.E., Sir Arthur Whitelegge, K.C.B., M.D., Mr. D. R. Wilson, M.A.

Mr. J. W. T. Walsh, M.A., M.Sc., Mr. H. C. Weston, M.J.Inst.E., *Joint Secretaries*.

In the Second Report, which has just been published (price 1d.) by H.M. Stationery Office, the Committee deal only with the problems of suitable *artificial* lighting. We have been informed, they remark, that some misconception and ignorance on these problems exist, and that unsuitable systems of lighting are still common in factories and workshops. This condition has been accentuated recently by the introduction and extending use of high-intensity gas-filled electric lamps, which in many instances are used to replace tungsten lamps in shades and reflectors intended for the latter. We would, therefore, take this opportunity of pointing out that, generally speaking, one type of shade is adapted to one type of lamp only, and that, to maintain suitable lighting, change of type of lamp often necessitates change of type or readjustment of the shade.

The requirements of suitable lighting are quite definite: they are absence of glare and of troublesome shadows, a steadiness and constancy of the light source, together with a moderate degree of uniformity of illumination and of surface brightness over the plane of work. The subject is considered in the present report under the following three headings:—

(1) Glare,
(2) Shadow,
(3) Constancy,

in respect of which we make definite recommendations. We have also considered certain other factors bearing on suitable lighting, namely:—

(i) Diversity, i.e., the ratio of maximum to minimum illumination. This is closely related to adequacy, since upon the maximum illumination depends the extent to which the illumination may fall before it becomes inadequate. We have, therefore, deferred full consideration of this factor until the subject of adequacy is dealt with.

(ii) Contrast due to difference of surface brightness. Further experiments may show that some regulation as to the surface brightness of any two visually contiguous surfaces may be required, but in the present state of our knowledge we are not prepared to make any recommendation on this point.

(iii) Colour and composition of the light. The introduction of new high-intensity light sources of different types may, eventually, make it necessary to consider how far this factor affects the suitability of lighting, but we are of opinion that no requirement dealing with this point is called for at present.

(1) GLARE.

In our First Report (page v) the term *Glare* has been accepted as covering any of three phenomena, which are defined as follows:—

(1) The effect of looking directly at a bright source of light, such as an arc lamp, so that the observer is for the time being prevented from seeing other objects properly. He is temporarily dazzled, and his vision is impaired for a short period after the light has ceased to enter his eyes.

(2) The effect which is produced by the presence of one or more bright sources of light towards the edge of the field of vision so that the rays enter the eyes obliquely from them. An observer may never look directly at such sources of light, but he is nevertheless troubled by their presence near to the object at which he is looking. This is the commonest form of glare.

(3) The effect which is produced when the surface of cloth, metal, paper, or other material being worked upon is shiny or polished, and reflects light directly from some source into the eyes of the worker. Many satin cloths, for instance, have a "sheen" or a power of regular reflection of light which causes work with such materials to be very trying unless the worker is so placed with reference to the source of light that none of the rays can be directly reflected from the material into his eyes.

All three forms of glare are still to be met with in factories. The possible effects of the first two of these, which are most commonly due to the absence of protection or to imperfect protection of the light sources, are twofold. Discomfort may be caused to the worker by the presence of a strong light in or near his line of vision, or a worker or other person entering a room may be temporarily dazzled by the light, so that he is unable to see his way about, and may incur additional risk of accident.

The first essential of suitability, therefore, is *proper* shading of the light sources. Many types of shades are now in use, and these vary considerably in efficiency. Some definition of the term "proper" shading seems, therefore, to be required.

The effect of a shade is to reduce the intrinsic brilliance of the source when seen through the shade, and proper shading could accordingly be defined by prescribing a maximum brightness for the shades not exceeding a given number of candles per square inch. This method, however, involves complicated measurement, and we suggest, as a practical alternative, the simple criterion whether the incandescent filament, mantle, or flame is distinguishable as such when viewed through the shade.

So far as glare is concerned, the source need only be screened when in or near the direct line of vision, and then only in the direction towards the eye, and we have accordingly considered the framing of a requirement which, without insisting on complete screening of the source, will ensure that no bright surface is visible except considerably away from the usual line of vision.

In formulating such a requirement we have taken two factors into consideration:

(i) The distance of the source from the eye.

(ii) The angle at which the light from an unscreened or improperly screened source may enter the eye without producing objectionable glare.

(i) If an unscreened source is situated beyond a certain distance, which for all sources commonly employed in factories may, we think, be taken as 100 feet, its apparent size and the amount of light entering the eye will be so small as to render the glare effect much less evident, and any such sources may, in our opinion, be excluded from the requirement which we propose.

(ii) Conversely, as the distance between the eye and the source decreases, the apparent size of the source and the influx of light from it will increase, and glare can then only be avoided by screening the source or by increasing the angle between the central line of vision and the source.

We think, therefore, that in practice a suitable requirement might be expressed in terms of the distance of the source and of a limiting value of the angle between the line from the source to the eye and a horizontal plane, within which angle no such source should be directly visible. A certain amount of scientific evidence exists* as to the most desirable angle for this purpose, and we have been guided by this in formulating our requirement. In the case of sources used for general lighting, we consider that, for the purpose of a legal requirement, the limiting value of the angle specified should be 20 degs., but in the case of very near sources, such as are employed for local lighting, this angle is, in our opinion, too small to ensure absence of glare, and we think, therefore, that an angle of 30 degs. should be substituted.

* First Report of the Departmental Committee on Lighting in Factories and Workshops, Cd. 8000, Appendix X, Cobb's conclusions.
Weber. "Discussion on Glare, its Causes and Effects." *The Illuminating Engineer*, vol. iii, 1910, p. 116.

We accordingly recommend that there should be a provision as follows :—

(A) . . . "Every light source (except one of low brightness†) within a distance of 100 feet from any person employed shall be so shaded from such person that no part of the filament, mantle, or flame is distinguishable through the shade, unless it be so placed that the angle between the line from the eye to an unshaded part of a source and a horizontal plane is not less than 20 degs., or in the case of any person employed at a distance of 6 feet or less from the source, not less than 30 degs."

The third form of glare (which is common in factories where smooth or polished material is used) is generally caused by unsuitable placing of the source, and may be remedied either by changing the position of the source relatively to the eye, or by increasing the diffusion of the light by enclosing the source in some diffusing material. We suggest the following simple requirement :—

(B) . . . "Adequate means shall be taken, either by suitable placing or screening of the light sources, or by some other effective method, to prevent direc-reflection of the light from a smooth or polished surface into the eyes of the worker."

(2) SHADOW.

Troublesome shadows are frequently to be found even with systems of lighting which are good in themselves. They are generally due to unsuitable placing of the light sources, whereby the shadow of the worker himself or some part of the plant or material is cast on the place of work, and are particularly objectionable when thrown by some object in motion. Apart from the annoyance caused and the interference with the proper execution of the work, deep shadows, by concealing dangerous parts of machinery, may lead directly to accidents.

We recommend, therefore, that there should be a provision as follows :—

(C) . . . "Adequate means shall be taken to prevent the formation of shadows which interfere with the safety or efficiency of any person employed."

(3). CONSTANCY.

Constancy in artificial illumination is a matter of great importance. Unsteadiness and flicker have an injurious effect on vision, and, if pronounced, increase the risk of accidents.

Under modern conditions, and with a modern system of lighting, this detrimental factor is unlikely to arise. We are advised, however, that there are factories in which old-fashioned batswing burners are still in use (apart from instances where they are deliberately employed for special reasons, e.g., on boring machines), or in which incandescent gas mantles are inadequately protected from draughts. Similarly in some factories which are electrically lighted, flicker and variation in illumination may arise possibly through the employment of alternating voltages of low periodicity. We think that flicker which can be remedied should be prohibited, and we accordingly recommend that there should be a provision as follows :—

(D) . . . "No light sources which flicker or undergo abrupt changes in candle-power in such manner as to interfere with the safety or efficiency of any person employed shall be used for the illumination of a factory or workshop."

Taking into account that extensive alterations may be necessary in many factories to comply with the requirements suggested, we recommend,

(E) . . . "That, as regards existing installations, a reasonable time limit should be given before the above requirements become operative."

[The first report, it may be recalled, recommended that there should be a statutory provision: (*a*) requiring adequate and suitable lighting in general terms in every part of a factory or workshop, and (*b*) giving power to the Secretary of State to make Orders defining adequate and suitable illumination for factories and workshops or for any parts thereof or for any processes carried on therein. The present report may be obtained through any bookseller, or directly from H.M. Stationery Office at the following addresses: Imperial House, Kingsway, London, W.C. 2, and 28 Abingdon Street, London, S.W. 1; 37 Peter Street, Manchester; 1 St. Andrew's Crescent, Cardiff; 23 Forth Street, Edinburgh; or from E. Ponsonby, Ltd., 116 Grafton Street, Dublin.]

† By "low brightness" is meant an intrinsic brilliance of not more than five candles per square inch.

Labour Wages Reductions

The Effect on Building Costs.

By G. FLINT CLARKSON, A.R.I.B.A.

There have been several reductions in the rates of wages within the last few months; but as the official announcements merely state the reduction per hour, it is not easy to appreciate the effect of these reductions on the cost of building. This is made still more difficult as the award promulgated in July, which affects the rate for unskilled labour, is based on the relative rates to be paid to skilled and unskilled labour, and is not uniform throughout the country as have been the previous and subsequent awards. Table 1 below shows the drop in wages in the London area, and Table 2 gives the percentage drop resulting from each reduction and its effect on building costs previous to each reduction. The total drop is greater in the smaller towns than in the large, and amounts to 18 per cent., while in rural districts the fall almost amounts to 19 per cent. Naturally, however, the amount will vary on every building in accordance with the proportion of skilled and unskilled labour. The rates shown for May 1 came into force on July 1, 1920.

On May 25, page 647, a table by Mr. W. Parry Jones was published in this JOURNAL on the relative value of material and labour in the different trades. By combining this with the tables in this number, the fluctuations in the cost of building so far as labour is concerned can be readily ascertained.

TABLE. 1. SHOWING DROP IN WAGES · LONDON AREA

	RATE ON				
	MAY 1ST	MAY 16TH	JULY 1ST	AUG. 1ST	SEPT 1ST
CRAFTSMEN	2/4	2/2	2/2	2/1	2/0½
LABOURERS.	2/1	1/11	1/10	1/9	1/7½

SPECIAL LABOURERS 1d PER HOUR ABOVE GENERAL RATE.

TABLE. 2. SHOWING EFFECT OF DROP IN WAGES ON BUILDING COSTS. · LONDON AREA.

PERCENTAGE REDUCTION ON RATE ON.	MAY 16TH.			JULY 1ST			AUG 1ST			SEPT 1ST		
	CRAFTSMEN	LABOURERS	COMBINED	CRAFTSMEN	LABOURERS	COMBINED	CRAFTSMEN	LABOURERS	COMBINED	CRAFTSMEN	LABOURERS	COMBINED
MAY 1ST.	7·19	8·00	7·46	7·14	12·00	8·96	10·7	16·00	12·68	12·50	22·00	16·00
MAY 16TH	—	—	—	—	4·33	1·63	3·90	8·70	5·70	5·77	15·26	9·30
JULY 1ST.	—	—	—	—	—	—	3·90	4·50	4·12.	5·77	11·30	7·80
AUG 1ST.	—	—	—	—	—	—	—	—	—	2·00	7·23	4·00

THE COMBINED PERCENTAGE IS BASED ON THE PROPORTION OF SKILLED TO UNSKILLED LABOUR BEING 62·5% AND 37·5% RESPECTIVELY, WHICH IS A COMMON AVERAGE. BUT THIS NATURALLY VARIES WITH EVERY BUILDING ··

Traditional Architecture in Buckinghamshire : A House at Fenny Stratford



The magnificent Tudor chimney-stacks are the most notable feature of the above house, which gives distinction to a part of the town near the Holyhead Road. The house has lately been altered to serve the purpose of a shop.

Correspondence

How to Educate the Public

To the Editors of THE ARCHITECTS' JOURNAL.

SIRS,—The participation of architects n speculative building would no doubt nprove the design of the buildings :ith which they were concerned. Archi-ects do at the present time take part in peculative enterprises in several direc-ions, but whether they always find their ccount in so doing is open to question. f they allied themselves with specula-.ve builders of houses for the working lasses, it is possible that the present tandard of design in such dwellings ıight be raised, and along with it the ublic taste. But the speculative builder as got to be persuaded that he will enefit by sharing his profits with an rchitect, and the architect has got to ıtisfy himself that his risks will be well ɔvered by his profits.

But granted that these points are satis-ıctorily settled, is the problem of educat-ıg the public to appreciate good archi-ecture solved? He would be a sanguine ıan who thought so, although a step might ave been taken in the right direction.

The mere placing together of building ıaterials in a permanent manner must ecessarily result in some sort of design ther good, bad, or indifferent. The rocess implies an arrangement or com-ɔsition—that is, a plan and a disposi-on of appearance. Whatever may be ıe result, the process itself is highly echnical, and common sense points out ıat in order to obtain a good result ersons should be employed who have een specially trained in the process, amely, architects. This is the idea which ants to be brought home to the public, ıd signs are not wanting that some ublic bodies are beginning to take this ɔmmon-sense view. J. A. GOTCH.

[Mr. Gotch's letter forms an interest-ıg contribution to the controversy on Should the Architect Speculate?" on hich topic the views of a number of ur readers were given in last week's sue of the JOURNAL.]

The "Ideal" Cottage

To the Editors of THE ARCHITECTS' JOURNAL.

SIRS,—In your issue of December 12, 917, you published some observations of ıine on the method adopted by the .I.B.A. in connection with a competi-on for cottages which the Royal Insti-ıte had been invited to conduct on ehalf of the then Local Government oard. Subsequently the London "Daily ail", and "The Daily Express" con-ucted similar competitions. In the ggregate several thousands of pounds ere expended in an endeavour to arrive t the ideal cottage plan.

It is now of interest to ascertain to hat extent these competitions have ıstified the lavish expenditure and the seful or practical purpose they have erved. Personally, I have failed to find ıat they served any really useful purpose t all. In one respect they served a urpose very admirably—viz., owing to ıe nature of their designs, they placed a fictitious value on this class of property which no doubt proved very remunerative to the builders. Now that builders are returning to normal competitive tender-ing, this fictitious value is being removed.

Before the war few cottages were de signed and supervised by architects, with the result that, when the opportunity was suddenly sprung upon them, they utterly failed to think in terms of cot-tages. Compare the competitive designs referred to with what has actually been erected. Incidentally, I ask how many of these competitive designs got beyond the paper stage?

Fortunately, force of circumstances is compelling architects to think more in terms of cottages than of glorified villas, and while there is a simpler feeling in the external treatment, which is a wel-come development, there is still a good deal to be desired in the planning. For instance, when will architects appreciate that to arrange a pantry opening directly out of a wash-house scullery is a serious defect from a hygienic point of view? Have they never been in one of these places on a wash-day? If not, I suggest they go. Another point of objection is to the wash-house scullery being a passage-way from the back door to the living-room. Fancy the kiddies tramping in and out of the living-room while the washing is being done.

Personally, I am a strong advocate of every room in a house—be it cottage or otherwise — being self-contained. The position of the water-closet is another important item which requires far more consideration and thought than is usual. Naturally, for economic reasons one can only be afforded in cottages, but even so, there is no sense or reason in always placing it in such a position that, to dis-pose of the bedroom slops, it is necessary to traverse the hall, living-room, and scullery.

Another most common and incon-venient arrangement is the relation of the back door to the parlour. Assume the family using the parlour and a friend knocks at the back door, which is invari-ably the customary thing to do. To reach the back door one has to traverse the hall, living-room, and scullery, the two latter rooms in winter-time being naturally in darkness should the friend call in the evening. Under such condi-tions imagine the friend being invited in.

These are a few of the defects I have in mind, but they are quite important enough to demonstrate that we have not by any means arrived at the ideal plan. It would no doubt be interesting and probably profitable to see what a present-time competition would produce. Now that the subsidy for private enter-prise has been withdrawn, the housing problem presents itself in a new light. In view of this fact I venture to suggest that the Ministry of Health might do worse than spend a few more hundred pounds on a further competition, provided, of course, it is done on lines which will without doubt produce results which are of real practical value. On this point—notwithstanding your kind remarks—I still hold the same views as expressed in my previous letter.

D. J. ROBERTS, A.R.I.B.A.

Unification of Architects

To the Editors of THE ARCHITECTS' JOURNAL.

SIRS,—Your correspondent A. M. J. applied for election to the South Wales Institute of Architects some time ago, and the usual nomination and declara-tion forms were forwarded to him at once.

I believe it is usual in all societies and institutes of any standing that intending members should be nominated and seconded by gentlemen well known to the society or institute in question, and the South Wales Institute of Architects is no exception to this custom. A.M.J. failed to comply with this requirement.

A.M.J. is quite wrong in assuming "that anyone with thirty years' training in the hard school of practical experience is quite capable of being admitted to any society." I know of no society that accepts members on such an understand-ing.

IVOR P. JONES,
Hon. Sec.,
South Wales Institute of Architects.

Manchester University School of Architecture

To the Editors of THE ARCHITECTS' JOURNAL.

SIRS,—The following is introduced merely to draw attention to a matter affecting to some slight degree the good name, interests, and influence of the Chair of Architecture under the Manchester University, the Manchester Education Committee, and the Manchester Society of Architects, the object being to arrest as far as possible all or any carping criticism of its methods, its intentions, or its integrity.

The quotations will be known to many, and need no introduction. And in asso-ciation with these quotations may be cited the conclusion of Herbert Spencer that "for discipline, as well as for guidance, science is of chiefest value. In all its effects learning the meaning of things is better than learning the meaning of words."

A passing mention should be made to the persistent schools which allege to base their teachings on nature. They omit the adjective healthy in this regard. Healthy nature develops on truly geomet-rical lines; though trees are crippled by storms as men are crippled by accident. None of these latter should be taken as typical of healthy nature. It is the prin-ciples of healthy nature that should govern architects in the treatment of their buildings and all conventional design.

Although inchoately expressed, the following may serve its purpose:

"So Art, as has been stated, is a certain state of mind, apt to Make, conjoined with true Reason; its contrary is the same state with false Reason, and both are employed upon Contingent or variable matter."

"That education is not such a thing as some announce it to be; for they say, that whilst there is no science in the soul, they will insert it, as if they were insert-ing sight in blind eyes. But our present reasoning now shows that this power is in

Correspondence—(*Continued*)

the soul of every one, and is the organ by which every one learns."

"But the controversy is not, as it appears to me, about a name, with those who inquire into things of such great importance as those now before us. Do you agree then, as formerly, to call the first part science, the second the dianoetic power, the third faith, and the fourth conjecture; and also these two last opinion, and the two former intelligence? And that opinion is employed about the changeable and intelligence about the essence? Likewise, that as the essence is to the changeable, so is intelligence to opinion, science to faith, and the dianoetic power to conjecture?"

"But do you not call him skilled in dianoetic who apprehends the reason of the essence of each particular? And as for the man who is not able to give a reason to himself and to another, so far as he is not able, so far will you not say he wants intelligence of the thing?"

"You will then lay down this to them as a law: 'That in a most especial manner they attain to that part of education, by which they may become able to question and answer in the most scientific manner . . .' Does it then appear to you that dialectic is placed on high as a bulwark to disciplines? and that no other discipline can with propriety be raised higher than this; but that everything respecting disciplines is now finished?"

"And is not this one prudent caution, that they taste not reasonings whilst they are young? For you have not forgot, I suppose, that the youth when they first taste of reasonings abuse them in the way of amusement, and they employ them always for the purpose of contradiction. And imitating those who are refuters, they themselves refute others, delighting like whelps in dragging and tearing to pieces, in their reasonings, those always who are near them. And after they have confuted many, and been themselves confuted by many, do they not vehemently and speedily lay aside all the opinions they formerly possessed? . . . But he who is of a riper age will not be disposed to share in such a madness, but will rather imitate him who inclines to reason and inclines after truth, than one who, for the sake of diversion, amuses himself and contradicts. He will likewise be more modest himself, and render the practice of disputing more honourable instead of being more dishonourable."

Owing to my association for many years with the Advisory Board of the Chair of Architecture, I have been told repeatedly that the methods in regard to the teaching of architecture are not satisfactory in Manchester. Such opinions spring from irresponsible individuals and some practising architects. So far I have been unable to obtain from them any scheme that they would prefer to the one existing under the Advisory Board and practised at the University or the School of Art.

It is submitted that professors of universities should be left to their own methods of teaching so long as such are performed after the university manner. If there is any supposed or alleged vicious teaching, such should be dealt with by a committee of professors after evidence has been heard or tendered. The professors should, and usually do, encourage intelligent enquiry. It will be admitted that the general welfare of the student should be the sole object and endeavour of the teaching; not the side issues of irresponsible architects who believe themselves capable of undertaking the direction and control of any subject in which they are only partially informed, and who, by mere assertion, hope to further some peculiar form of originality of which they have become obsessed and which some clients have been prevailed upon to accept as the outcome of exceptional genius. Some of these would-be mentors suggest that the professors and teachers should be what are called craftsmen. Now a craftsman may know "How," but may not know "Why." The architect's position is in the nature and capacity of a director of all; and his knowledge should fit and enable him to fulfil such office. Architecture is similar in nature to a language. Its history, origin, and grammar must be thoroughly mastered before anyone can be understood and "speak" in terms which may be understood and read by all acquainted with any such language. It is similar to the study of costume, the propriety of which demands attention if ridicule is to be avoided. The practice of architecture demands a thorough understanding of the ascertained principles of its tradition, its history, development of its features and ornament, constructional development, how material has influenced construction, and in what manner the social changes in nations have influenced the styles, plans, and other things.

One serious matter is this: "Things we may have dubbed ugly, we may by association, sentiment, and knowledge of them, learn to appreciate," especially so when we learn that they fulfil truthfulness of construction, fitness for their use or employment, and are crowned with that subtle thing proportion.

Attractive draughtsmanship, picture-making, highly-coloured, impossible, and untruthful perspectives should be left to the schools which, for popular advertisement, encourage such false exposition. To make drawings for the craftsmen and builders in order that they may be interpreted into the materials for the structure, is the beginning and the end of the functions of architectural draughtsmanship.

Architects have no interest in likes and dislikes; only the reasons for likes and dislikes. Students require to know "*Why*" in addition to "*How*." *How* to draw may be the object of the teaching at the School of Art; *Why* may be left to university teachers.

It is submitted that the teachers and lecturers should encourage the students to build up a library of their own, both for present and future reference; and when lecturing or issuing an epitome of their lectures should give a list of the authorities on such subjects. Where they differ from any authority, they should give their reasons for their conclusions, and this with great caution. Especially is this the case in regard to junior teachers who generally have an unpardonable desire to inflict on the student their own personality and individuality without, in the majority of cases, any solid reason for so doing. Let the Board of Professors be the authority to decide that which shall be taught in their school. It may be noted with advantage that architects have gathered much help and guidance from pamphlets and brochures on collateral and special subjects written and published by lay men and professors not associated with the teaching of architecture, only profoundly interested. Is it too much to ask that some sympathetic professor be empowered to expound to the student the 6th Book of Aristotle's Ethics? This would put them in a position more readily to avoid surface inspection and encourage them to go deeper into an atmosphere where reason reigns.

PAUL OGDEN.

Whitgift Hospital

To the Editors of THE ARCHITECTS' JOURNAL.

SIRS,—The subjoined letter, which I have just received from the hon. secretary of the Art Standing Committee of the R.I.B.A., may be of interest to you:—

9 Conduit Street,
Regent Street, W.1

DEAR SIR,

Whitgift Hospital.

At the last meeting of Art Standing Committee attention was called to your article in the ARCHITECTS' JOURNAL pointing out that the destruction of the above Hospital was again threatened.

The Committee have always taken a deep interest in the preservation of the Hospital, and I am to assure you of their keen support in any action that may be taken to prevent the destruction of this interesting old building.

Yours faithfully,
(Sgd.) MAURICE E. WEBB.

It is gratifying to know that so influential a body as the Royal Institute of British Architects is ready to lend its active support to such proposals as may be made for the preservation of the Whitgift Hospital. If the other organizations mentioned—the London Society, the Society for the Protection of Ancient Buildings, and the Town Planning Institute—were of a similar mind, it might be possible to inaugurate some form of propaganda, and to prepare at the same time a concrete scheme to save the Hospital.

L. BROOK-PARTRIDGE.

Obituary

The late Mr. H. A. Purchase.

We regret to announce the death of Mr. Henry Arthur Purchase, of Harborne, building surveyor and chief architectural assistant in the city surveyor's department of the Birmingham Corporation. Mr. Purchase, who was fifty-two years of age, entered the Corporation service in 1896, and for a time acted as assistant in the city surveyor's drawing office. In 1902 he was appointed deputy building surveyor. On the death of his chief, Mr. Lee, in December, 1913, he became building surveyor and chief architectural assistant. In addition to his responsible service in the Public Works Department, which consisted for the most part of the administration of the by-laws relating to new streets and buildings, Mr. Purchase did a large amount of architectural work, under the city surveyor's direction, for the police and fire stations.

Picture Gallery Illumination

At the request of the Director of Works, H.M. Office of Works, the National Physical Laboratory has given assistance in regard to certain details of a design got out to suit the special conditions of the lighting of one of the galleries of the National Gallery.

It was impossible to do the work required in the gallery in the time available, as it was then being used for war purposes, and it was decided to erect a scale model one-third full size, in the open space at the back of the National Gallery. This was done, and measurements of illumination on the walls and floor of the model were made under different weather conditions with various arrangements devised to produce the lighting effects desired. A great advantage of working on a small model is that alterations in the arrangement of the lighting can be made in a few hours, whereas many weeks would be required in the full-sized gallery.

According to the last annual report of the Laboratory the principal objects of research were to secure adequate illumination on the walls, while avoiding direct sunlight, and to diminish as far as possible reflections of objects and people in the glass covering the pictures. It will be realized that the problem is quite different in the case of a gallery running E. and W. from what it is in a gallery running N. and S.

The accompanying illustration shows the arrangement evolved for a gallery running E. and W. in which a ceiling covers the middle third of the room. Direct sunlight is kept off the pictures on the N. wall by a vertical screen placed outside over the ceiling. By making this of a suitable size and having it white on the N. side so as to reflect the light from the N. part of the sky, the illumination of the N. and S. walls can be rendered equal for practically all conditions of weather. The scheme avoids the large amount of direct top light which illuminates strongly the people in some of the present galleries, and which makes the reflections in the glazing of the pictures very troublesome. At the same time the sensation of glare is much diminished.

The problem of a suitable lighting of a similar type for a gallery whose length is N. and S. is now being investigated. For this purpose the model has been turned through a right angle, and schemes for producing the desired results are being tried. One of these consists of a series of transverse screens arranged to keep direct sunlight from falling on the walls.

The Office of Works also asked the advice of the Laboratory on the illumination of the House of Commons and of the House of Lords. Measurements were made at many points in both chambers, with the result that the illumination of the House of Commons especially was found to be very low, less on the average than the equivalent of one candle at a foot. It is usually considered that three or four times as much should be provided for easy reading of such matter as manuscript notes, etc.

Building Operatives and Ex-Service Dilutees

Mr. George Hicks, in delivering his presidential address at the annual conference of the National Federation of Building Trade Operatives held at Perth, said that dilution was one of the questions that was still to the front. In spite of the fact that thousands of their members were unemployed and thousands of partially trained disabled ex-Service men were similarly placed, there were some sections of employers who were desirous of forcing an issue with the building trade unions on this question.

The Premier had made a public declaration, and given a promise to the master builders that in the event of the trade unions placing obstacles in the way, and preventing the employment of ex-Service men as dilutees, the Government would give financial backing to the employers.

On the surface this looked quite an innocent thing, but there were some employers who were cute enough to see in this an opportunity for bigger things. If they could provoke a national dispute on the question of dilution they would immediately get popular sympathy. They would also get Government financial support, and to the public it would appear to be a struggle between employers and operatives on the question of employment of ex-Service men. He therefore urged them to be on the alert.

Referring to the new machinery for dealing with wages and conditions, and the introduction of a sliding scale based on the Ministry of Labour's figures relating to the cost of living, the president said he was of opinion that had it not been for the machinery that had been functioning the economic status of the building trade workers would have been worse.

"We are constantly," said Mr. Hicks, "receiving advice from our members urging us to strike. A good proportion of them think that is our chief duty. I again repeat it is more easy to strike and lose than it is to strike and win. With the evidence we have on all hands to-day I consider that to promote a struggle from our side would be a mistake. One thing, however, must be made clear, namely, that the Wages and Conditions Council must be a conditions council as well as a wages council, and unless such things as dilution, payment by results, the working week, etc., are decided by that body, I would positively refuse to be a party to that council in any shape or form."



THE ILLUMINATION OF PICTURE GALLERIES: AN EXPERIMENTAL DESIGN

Enquiries Answered

The Editors cordially invite enquiries from readers who require information on architectural, constructional, or legal matters.

Answers to enquiries are in all cases the work of experts, and while every care is taken to make the replies thoroughly reliable, the Editors cannot hold themselves responsible for any inaccuracies that may inadvertently occur.

Correspondents whose difficulties involve possible legal proceedings are strongly urged to consult their solicitors before taking action on any advice that may be given.

Examination questions cannot be answered.

It must be understood that, as a rule, both question and answer will be published in these columns. The name and address of the querist must always be given, not necessarily for publication.

Correspondents are requested to be as brief as possible, and to write on one side of the paper only.

"Moment of Inertia," and "Section Modulus."

E. C. P. A. writes: "The following passage is given in Jones and Lakeman's 'Reinforced Concrete' as an explanation of the term 'Moment of Inertia': *' . . . place a piece of timber 9 in. by 2 in. in section, as a beam over a certain span—say 10ft.—it will have a certain amount of power to resist stress, or, in other words, a certain amount of power to remain "inert," which power can be expressed as its "moment of inertia."'* This would appear to be identical with the moment of resistance of a beam, and I should be grateful if THE ARCHITECTS' JOURNAL could give a clear explanation of the precise difference between these two terms and the section modulus, with a worked example of the calculations of a beam. Such an explanation would I am sure be welcome to many students of structural mechanics."

—Bending moments, which consist of forces acting with the mechanical advantage of leverages, can only be met by moments of resistance, viz.: by stresses which also act with the advantage of leverages.

The fibres of a beam subjected to bending moment depend for this necessary leverage upon their distances from the neutral axis of the beam, which passes through the centre of gravity of the cross-section, and about which they act after the manner of a double hinge.

The sum of the area in each thin layer of material in the cross-section multiplied by its distance from the neutral axis, when corrected for any variation of stress in different parts of the cross-section under bending, makes up a quantity which may be considered as the muscular development of the section, and is known as the section modulus (Z).

The beam's muscles may be strong or weak, firm or flabby, according to the material. The Z of a section is the same, whether the beam be of steel or soap.

The muscular *effort* or moment of resistance (M.R.) of a beam consists of its section modulus (Z) multiplied by the stress in that layer of fibres which is most heavily punished under bending, such as the top and bottom skins of the flanges of a rolled joist. If f be the safe stress per square inch of the material, then Zf will be the moment of resistance which the section can safely be called upon to develop. As moments of resistance are called into being by equal and opposite bending moments, Zf is also the measure of the bending moment which the beam can safely be called upon to resist.

If fo be the breaking stress of the material, then Zfo is the bending moment which will break the beam.

In a plate girder section having substantial flanges and a thin web, as Fig. 1,

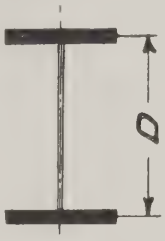


FIG 1

it is sufficiently correct to neglect the small difference in stress between the top and bottom layers of each flange, and also the small contribution made by the thin web to the total MR. The area (A) of each flange can then be treated as if it were a thin lamina situated at a distance of $\frac{D}{2}$ from the neutral axis, when D is the depth between the centres of gravity of the flanges. Then

$$Z = 2\left(A \times \frac{D}{2}\right) = AD, \text{ and } MR = AD\!f.$$

Forms of failure other than flange rupture, such as web crumbling or shear, must also be taken into account; but precautions against these dangers have no more connection with flexural failure than have precautions against fire or decay.

In a rectangular beam section, such as the floor joist shown in Fig. 2, it will be

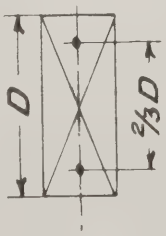


FIG. 2

obvious that the different layers of fibres have widely different values. Those furthest from the neutral axis have not only a greater leverage, but are also more heavily stressed. The contribution made by each thin layer to the total Z or MR of the section depends, therefore, upon the square of its distance from the neutral axis.

Higher mathematics provide expressions, simple in form and known as moments of inertia (I), which correctly express the sum of the area of each infinitely thin layer in a section multiplied by the square of its distance from the neutral or any other given axis.

The total MR of any section will be the stress on a layer of fibres at unit distance, say 1 in., from the axis $\times$ I. If the extreme fibres (the stress f, on which is the criterion of the strength of the beam) are situated at y inches from the axis, then the stress at 1 in. will be $\frac{f}{y}$, and the MR of the section will be $\frac{I}{y}f$. Of this expression $\frac{I}{y} = Z$.

The family relationships between the terms mentioned by your correspondent are therefore:

$$BM = MR = Zf = \frac{I}{y}f \text{ and } I = Zy.$$

Stiffness is only a distant cousin of strength, and its liabilities and assets must be calculated differently.

The stiffness of a beam varies directly with the moment of inertia of its cross-section; and not, like its strength, as the section modulus.

Hence the form of the classic expression for deflection (Δ).

$$\Delta = \frac{Wl^3}{EI}N.$$

In this formula N is a constant depending on the conditions of loading and end-fixing, such as $\frac{5}{384}$ for supported beams of span l carrying an equally distributed load W; whilst E is the elastic modulus or measure of stiffness of the material.

The I of any rectangular section of breadth b and depth d about a central or neutral axis is $\frac{bd^3}{12}$. As $y = \frac{d}{2}$ the section modulus $Z = \frac{I}{y}$ is obviously $\frac{bd^2}{6}$.

It is possible to ascertain the section modulus of any section without introducing the moment of inertia by adopting another method of allowing for the varying stresses in the fibres.

If we assume that the area of each thin layer of fibres has been reduced in proportion to the reduction of stress between the outer fibres and the centre, the result is a hypothetical section of the same strength, but equally stressed all over. The Z of such a section would be the area of each hypothetical flange multiplied by the distance of its centre of gravity from the neutral axis.

Thus in the floor joist, Fig. 2, the hypothetical section or "inertia area," as it is usually termed, would be a pair of triangles as shown. The Z of such a section would be $2 \times \frac{bd}{4} \times \frac{d}{3} = \frac{bd^2}{6}$ as before.

The use of inertia areas is a convenient method of dodging any consideration of the moment of inertia; but it is apt to lead to waste of time and muddled ideas.

The Z of the 9 × 2 joist referred to by your correspondent would be $\frac{2 \times 9 \times 9}{6} = 27$, and its I would be $\frac{2 \times 9^3}{12} = 121{\cdot}5$. Assuming a safe fibre stress for the timber to be 11 cwts. per square inch, the bending moment which it could safely resist would be 297 inch-cwts. Over a span of 10 ft. the safe distributed load would be ascertained as follows:

$$BM = MR = \frac{Wl}{8} = 297$$

$$W = \frac{297 \times 8}{120''}, \text{ say } 20 \text{ cwts.}$$

Under this loading its deflection would be computed thus: average value of E for good fir = 14,000 cwts. per sq. in.

$$\Delta = \frac{5}{384} \cdot \frac{Wl^3}{EI} = \frac{5 \times 20 \times 120^3}{384 \times 14{,}000 \times 121{\cdot}5} = {\cdot}265''.$$

P. J. W.

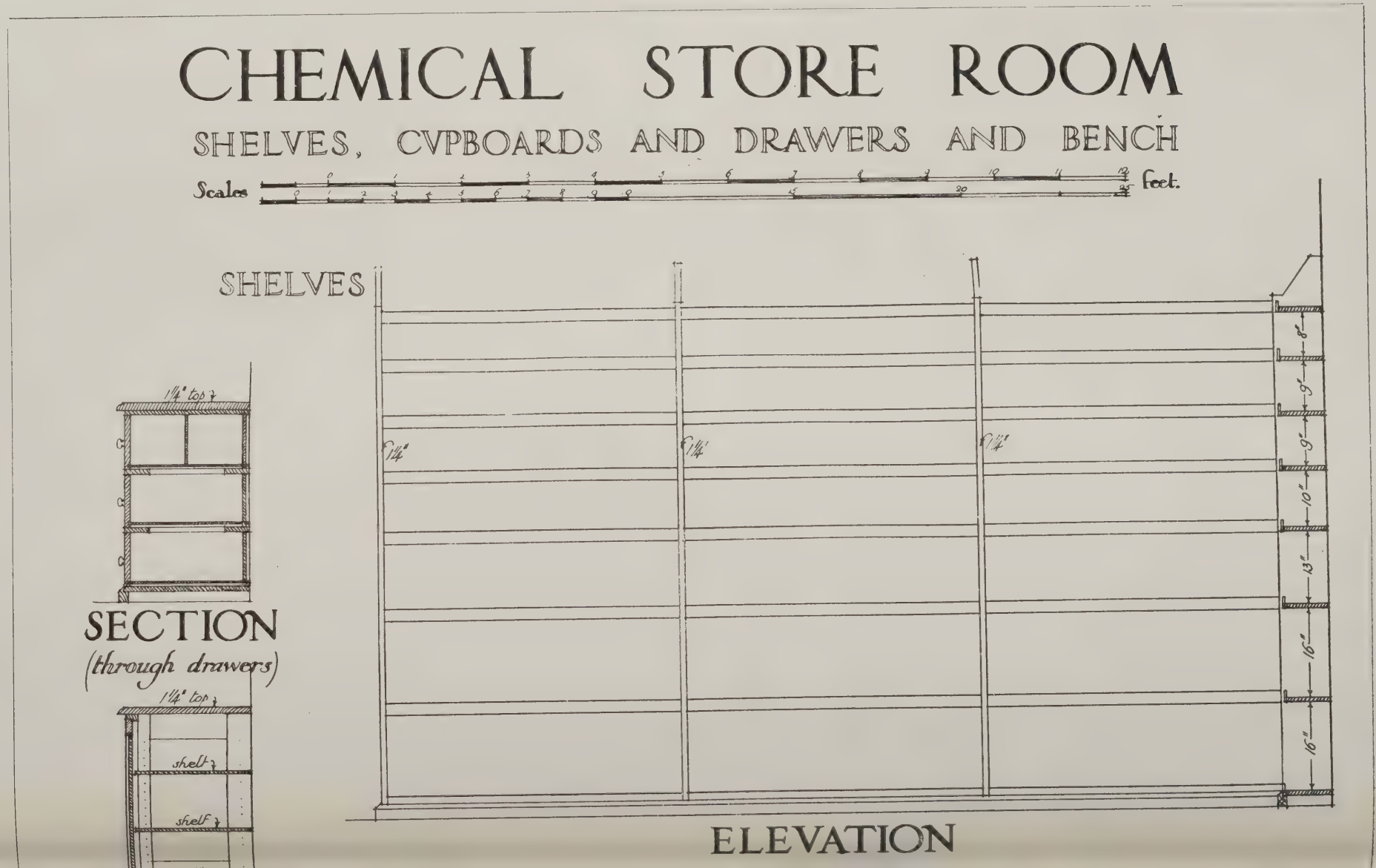
(*Enquiries Answered continued on p. 233*)

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Practical Notes for Architectural Draughtsmen (Series II) Technical Schools and Science Buildings.

6.—Chemical Store Room

A. W. S. Cross, M.A., F.R.I.B.A., and Kenneth M. B. Cross, M.A., Architects



PLAN

CVPBOARDS AND DRAWERS

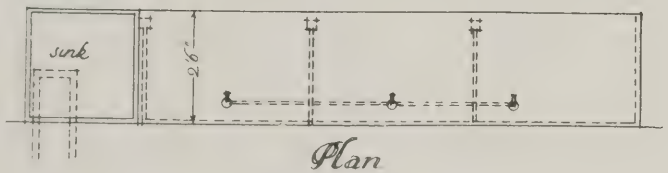


ELEVATION

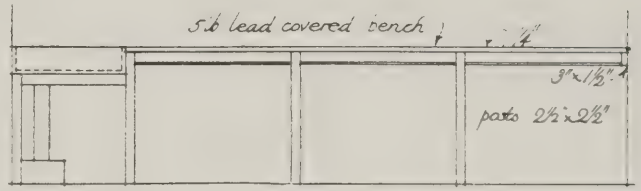


PLAN

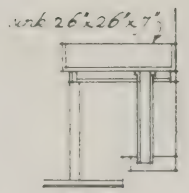
BENCH



Plan



Elevation



Section

Alfred W. S. Cross M.A., F.R.I.B.A.
Kenneth M. B. Cross M.A., Architects,
46 New Bond Street, London W.

In the above drawing are shown some typical examples of furniture for a chemical store room. Some detail notes are given on page 238.

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PETROL-FILLING STATION NEAR BATTERSEA BRIDGE: INTERIOR.

Enquiries Answered

(*Continued from page 228.*)

Roofs for Powder-storage Sheds

V. M. K. writes: "Please give me some rmation relating to the construction roofs for gunpowder-storage sheds. se sheds are very liable to periodical losions, and the best practical type of is one with the minimum of wooden ning and detailed construction, e.g., and laths. The older mills use a mon tarpaulin which, when blown , can easily and quickly be replaced, offers no danger to life as would fall- tile, slate, or corrugated iron. Is e any system of hinged roof in sec- s that automatically opens and closes r explosion? There is a form of re- rced talc (imitation glass) on the ket, capable of bending and being with scissors. Can you give me the e of the manufacturer of this?"

orrugated asbestos sheets are good in every way. They can be obtained in lengths up to 10 ft., and require a minimum of timber in fixing. Buildings of this material are cool, and there is no danger of chance sparks by friction. If an explosion occurs the sheets become broken, and are less dangerous than whole sheets of corrugated iron floating through the air. Another form for short spans would be stout galvanized wire-mesh stretched taut, and covered with roofing felt fixed with mastic. A hinged roof as suggested would be useless, as an explosion would force the material from the hinges.

With regard to our correspondent's final question, the material that he apparently has in mind is what is known as "Glassnet." This can be obtained from Messrs. Burrell and Lethern, St. Martin's House, 29 Ludgate Hill, London, E.C. It should suit his purpose very well, being translucent, pliable, and easily cut. A description of the material was given in "Specification" for 1920.

Petrol-filling Stations in London

The petrol-filling station, although it has been very familiar in the United States for some time past, is something of a novelty in this country. First we had the isolated post at the side of the road, and from this we have gone to the much more ambitious type of station shown in the accompanying photographs. This station is situated at the south end of Battersea Bridge, and others are now in course of erection by the Anglo-American Oil Company, Ltd., in different parts of London.

As will be seen, the station consists of a curved double roadway, in the centre of which runs a narrow pavement with a number of pump standards erected upon it at intervals, the whole being enlcosed within concrete walls and iron railings. The roadway is also of concrete, and the small square office within the enclosure



PETROL-FILLING STATION NEAR BATTERSEA BRIDGE: GENERAL VIEW.

is of the same material. The work has been carried out by Messrs. F. D. Huntington, Ltd., Atlas White Portland cement, supplied by the Adamite Co., Ltd., having been used with conspicuous success.

A few notes may appropriately be added concerning the method of storage of the petrol, and the action of the pumping apparatus.

Underground storage tanks are generally constructed of steel with welded seams, and because they are sunk in the ground they form the natural place for the safe keeping of so volatile a liquid, which is thus kept out of reach of fire, and at a sufficiently low temperature to prevent evaporation.

The tank fittings consist of a vent to allow the passage of air to and from it, a fill-pipe for the delivery of the spirit from the tank wagon, and a connecting suction pipe. An underground tank, such as has been described, is complete when connected to a self-measuring pump. These pumps are built in two sizes, the one-gallon and the five-gallon size, and are so constructed that one complete operation of the pump delivers one gallon, or five gallons, of spirit according to its size.

Each size pump is also designed in two patterns, one for standing inside the building, and the other (totally enclosed in a mild steel casing to render it weather proof) for standing in the open.

Discharge is made from overhead through a 1-in. metallic hose terminating in a quick-acting anti-drip nozzle. The object of running this hose from a point overhead is to enable the operator to get the necessary slope on the hose for it to drain automatically.

This hose is made of flexible, smooth-bore metal tubing encased in a composition covering, both resisting the action of petroleum spirit, and is protected on the outside by a heavy woven jacket.

A large dial discharge register records the gallons pumped through, thus preventing all miscount.

The pump is also fitted with a meter which registers the exact quantity of liquid pumped up to 100,000 gallons, and then automatically repeats. This gives the garage proprietor an absolute check on the quantity of spirit that has passed through his pump.

When smaller quantities than those given by the complete operation of the pump are required, this may be done automatically as pre-determined by the operator by the use of the quantity stops with which the pumps are provided.

Royal Sanitary Institute Lectures

The autumn term of lectures and demonstrations of the Royal Sanitary Institute for sanitary officers begins on September 23. The course comprises the subjects scheduled for the examinations of the Institute and of the Sanitary Inspectors' Examination Board; and inspections and demonstrations have been arranged which include visits to public and private works illustrative of sanitary practice and administration. The lectures will be given by well-known authorities, such as Messrs. Alan E. Munby, M.A., F.R.I.B.A., W. C. Tyndale, O.B.E., M.Inst.C.E., Edward Willis, A.M.Inst.C.E., F.S.I., H. C. Adams, M.Inst.C.E., and W. R. Hicks, A.M.Inst. C.E. Full particulars may be obtained from Mr. E. White Wallis, F.S.S., director and secretary of the Royal Sanitary Institute, 90 Buckingham Palace Road, London, S.W.1.

Ministry of Health Report

The Second Annual Report of the Ministry of Health, 1920–1921, just issued by H.M. Stationery Office, price 2s. net, is a document of 214 closely printed pages, compact of information and statistics relating to the manifold activities of the Ministry. From its numerous sections we select a few items of direct interest to the architectural profession and the building industry.

Housing

With regard to housing, the following table shows the progress that was made during the year covered by the report.

(i) *Schemes of Local Authorities.*

	End of March, 1920.	End of March, 1921.
	Acres.	Acres.
Area of sites approved	43,441	57,467
House plans approved	161,837	275,868
Tenders approved	79,536	176,242
Houses in signed contracts ...	40,292	155,599
Number of houses commenced	13,355	94,197
Number of houses completed ...	1,239	25,878

In addition 149 houses had been acquired by local authorities for the purpose of conversion and had been converted into 528 flats, while work on four more houses representing 61 flats was still in progress.

(ii) *Public Utility Societies.*

	End of March, 1920.	End of March, 1921.
	Acres.	Acres.
Area of sites approved	1,275	1,722
House plans approved	4,420	8,750
Tenders approved	3,307	5,973
Houses in signed contracts ...	1,892	4,796
Number of houses commenced	946	3,424
Number of houses completed ...	94	1,930

(iii) *Provision by County Councils.*

	End of March, 1920.	End of March, 1921.
	Acres.	Acres.
Area of sites approved	73	173
House plans approved	268	1,003
Tenders approved	122	538
Houses in signed contracts ...	198	491
Number of houses commenced	26	241
Number of houses completed ...	2	82

(iv) *Provision by Private Persons.*

	End of March, 1920.	End of March, 1921.
Preliminary certificates ...	4,185	30,666
Certificates on completion ...	—	13,703

While the year under review has shown a very considerable increase in the production of houses, the results, it is stated, have been less favourable than was hoped on account of difficulties of labour, materials and finance, and the steady, increase in costs which has prevailed during the yaer.

Relaxation of Building By-laws

Section 25 of the Housing, Town Planning, etc., Act, 1919, enables a local authority, during a period of three years from July 31, 1919, to consent to erection of buildings which may not permissible under the local by-laws, which are in accordance with reg tions made by the Minister of Hea This power facilitates the erection adaptation as dwelling-houses of Ar huts and other more or less perman types of building.

The original regulations made un this section were issued in October, 1 These regulations were superseded by amended series published in Novem last under the title "The Ministry Health (Temporary Relaxation of Bu ing By-laws) Regulations, 1920."

The principal alteration made by amended regulations relates to dwelli roofed with thatch or other combust material. By-laws are in force in ma districts requiring the roofs of new ho to be externally covered with incomb ible material. The amended regulat enable the local authority in these tricts to allow the erection of ho roofed with combustible material, ject to compliance with certain conditi The extent to which it is advisable allow the use of thatch is a matte much controversy, and before issuing new regulations the Department sulted persons who have expert kn ledge of questions relating to fires and prevention. The regulation includes cial precautions framed for the purpos minimising the risk of fire where c bustible roof coverings are used. Da from sparks from locomotives is redu by requiring the house to be distan least 30 ft. from the nearest carri way and at least 60 ft. from the nea railway. Moreover, the risk of sprea fire is guarded against by the rule every group of four dwelling-houses covered with fire-resisting material be isolated by a distance of at least 6 every group of 24 such houses by a tance of at least 180 ft., and every g of 96 such dwelling-houses by a dist of at least 540 ft. from any other dwelling-house.

There is a right of appeal to the Min against the refusal of a local auth to consent under the above-menti section to the erection of a buil which complies with the regulation against any condition attached by a authority to their consent.

The Future of Town Planni

After summarizing the Town Plan Regulations of 1919, the report proce It will be evident that greater activ in town planning work may be exp in the near future, not only on acccou the obligation which rests upon town with a population of over 2 to prepare a scheme, but because th a growing appreciation of the value importance of town planning, whether spect of a single town or of a larger re

There is, perhaps, no work which be done at so little expense, yet wi great possibilities of good, and, not of great economies, as the preparati a well-thought-out town plan. A s scheme of zoning, and the reservati land for new roads that will be need the future, are sure methods of not securing such a form of developme will be most economically advanta to the community, but of actually s heavy expenditure which is necessari tailed where such foresight is not exer



PROFESSOR C. H. REILLY, M.A., F.R.I.B.A., ARCHITECT.



H. CECIL POWELL, A.R.I.B.A., ARCHITECT.

Above are shown two recent examples of War Memorial Crosses. That by Professor Reilly is near the church of St. Barnabas, Shacklewell, London, whilst that by Mr. Cecil Powell is at Mellor.

ritish Empire Exhibition

Why Wembley Park has been selected the site for the British Empire Exhibi-n in 1923 is explained in a circular ued by the promoters. It appears that ly after careful consideration of the ims of available exhibition facilities, cluding the Crystal Palace, and of eans of communication, was it decided form an entirely new exhibition centre, th the result that Wembley Park was cided upon as representing the site st suitable.

The exhibition, details of which were blished in THE ARCHITECTS' JOURNAL August 3, is under the patronage the King, and the Prince of Wales is esident of the General Committee, ile included in the list of Vice-Presi-nts are the Agents-General and High mmissioners for the Overseas Domin-ns and India.

By special Act of Parliament the vernment is to participate in the arantee fund to the extent of £100,000, ntingent upon £500,000 being forth-ning from other sources. More than half s amount has already been subscribed, l it is hoped that guarantees of at least e million pounds will be forthcoming.

The architects to the exhibition are . John W. Simpson, PP.R.I.B.A., and . Maxwell Ayrton, F.R.I.B.A.

Glasgow Ideal Homes Exhibition

Excellent progress is being made with Ideal Homes Exhibition promoted the Glasgow Corporation, to be held the Kelvin Hall, Kelvingrove, Glas-v, from September 19 to October 8. e exhibits will comprise building terials, furnishings, lighting, heating, our-saving and cleaning appliances, itary appliances, decoration, recrea-n, foodstuffs (prepared and preserved), l appliances for home nursing. Book-s for space have been exceptionally d. All the sections will be well resented, and the exhibition promises be even more successful than its two decessors.

The committee in charge of the arrange-nts have decided to have an artisan tion on somewhat similar lines to se successfully conducted in the previ-shows. There will be classes for men l women. Money prizes will be arded, but no entrance fee will be rged. The classes will embrace models ouses, furnishings, appliances, decora-ns, needlework, and metalwork. A ge number of entries are anticipated.

ape Institute of Architects

A great deal of useful work is being ried out in the interests of the pro-ion and architecture generally by Cape Institute of Architects, one of most progressive of the affiliated ieties of the R.I.B.A. Not only is Institute uplifting as well as protect-the status of the architect, but it is king every effort to educate the pub-to understand the advantages to be ured by obtaining professional advice matters of town planning.

The methods employed during the t year in pursuit of this policy are set h in the year-book of the Institute, a copy of which has just come to hand. Here it is announced that the members are unanimously in favour of registration and unification. Details are also given of some of the difficulties encountered by the Institute in its various activities, and of the improvements, such as increased fees for the architect and amendment of the Cape Town building regulations, obtained during the year.

The Institute realizes the need for up-to-date town planning, and with this object in view have formed a Town Planning Association, which at the moment is urging the passing of a Housing Bill embodying many desirable principles. In promoting this Bill the Institute hope to secure the co-operation of the town engineers, surveyors, and others in obtaining the appointment of experienced professional assistance in any scheme of land development. It is to be hoped that the Institute will be successful in obtaining for the profession in South Africa that public recognition to which it is due.

The Office-Bearers and Council of the Institute for the ensuing year are as follows :—President, Mr. W. J. Delbridge, A.R.I.B.A.; Vice-President, Mr. W. A. Ritchie-Fallon, A.R.I.B.A. Council: Fellows—Messrs. E. Austin Cooke, hon. treasurer; F. K. Kendall, F.R.I.B.A., and A. J. Thompson, F.R.I.B.A. Associates—Messrs. L. A. Elsworth, A.R.I.B.A., F. W. M. Glennie, H. A. McQueen, and C. P. Walgate, A.R.I.B.A. The Hon. Auditor is Mr. W. G. Fagg, Licentiate R.I.B.A., and the Secretary, Mr. T. A. Dalgleish.

Giant Bridge for New York

A Bill is to be introduced into Congress to provide New York with a new bridge, which, if completed, will be the largest in the world. The bridge will serve two purposes. It will give the City a much-needed temporary means of traffic communication across the Hudson to the New Jersey shore during the completion, in about five years' time, of the new vehicular tunnel. At the same time it will find a use for about sixty of the old wooden ships now in the hands of the Shipping Board. The bridge will be nearly 6,000 ft. long, with an average height above water of 40 ft. Two towers, each higher than the Woolworth building, will suspend the bridge, the old wooden ships serving as pontoons. In the centre of the bridge will be a drawbridge to permit the passage of tall-masted craft. New York is already the proud possessor of two of the largest bridges of this kind in the world. One of these, Hellgate Bridge, over the East River, is the largest steel-arched bridge, and the other, Brooklyn Bridge, is the largest span suspension bridge. At present the largest floating bridge is the pontoon bridge over the river Hooghly, at Calcutta.



ASHTON-UNDER-LYNE WAR MEMORIAL.
PERCY HOWARD, A.R.I.B.A., ARCHITECT. J. ASHTON FLOYD, A.R.C.A., SCULPTOR.

The Building Trades Parliament

The second day's sitting of the Industrial Council was devoted to consideration of reports submitted by the Management and Costs and Safety and Welfare Committees of the Council. Neither of these met with such a "mixed reception" as that accorded to the report of the Education Committee on the previous day, but operatives and employers were by no means of the same mind on many of the points at issue. Proposing the adoptionof the report of the Safety and Welfare Committee.

Mr. Foster, the Chairman, moved: "That the report . . . on a scheme of unemployment insurance be approved and remitted to the various constituent bodies, in order that they may express their opinions on the principles outlined in the report; that the committee be authorized to proceed with the preparation of a detailed working scheme of supplementary unemployment insurance, having regard to any recommendations that may be received from constituent bodies." With regard to Part II, dealing with unemployment through stress of weather, he hoped to report later. They were endeavouring to obtain statistics to give separate records of time lost for the different crafts, but this would only be done through individual employers, and the National Federation had not as yet agreed to assist them.

Mr. Cross (Vice-Chairman), seconding the resolution, remarked on the straightforward nature of the report and suggestions, and urged its adoption as a reasonable scheme. The fear of unemployment affected the moral of the industry, and he hoped that employers would give it due consideration and fair criticism. The scheme, which is supplementary to the State Insurance scheme, provides for double contributions by both employer and employé and doubled payments, thus ensuring a total benefit of 30s. a week in case of unemployment.

Various speakers supported the principles of the scheme, and it received criticism mainly from representatives of the operatives. Mr. Stranks maintained that the fear of unemployment should be altogether done away, that the State should bear the whole responsibility of guaranteeing a means of existence to its members. He objected to each industry controlling its own destiny. The "right to work" was urged, the possibility of malingering strenuously denied, and Mr. Coppock considered that the scheme should be administered entirely through the unions, not through the Ministry of Labour. Mr. Drower urged the importance of a proper system of accountancy and costing as a means of keeping down prices, and suggested that it would eliminate the cut-throat competition which was the operatives' worst enemy, and Mr. Whittall dwelt on the necessity of getting costs down, as present prices were ridiculous and stopped everything. The resolution was finally adopted.

The election of officers and committees then took place. Mr. Storrs was re-elected Chairman; Mr. Barron, Vice-Chairman; Mr. Batchelor, Treasurer, the last-named being voted an honorarium of £50 as an acknowledgment of his services. The various committees were also re-elected.

Mr. Thos. Foster moved: "That the decision of the Council at the meeting on Feb. 11, 1921, 'to invite one representative from each professional body' to serve on Committees of the Council be rescinded, and the following resolution substituted: 'That on Committees of the Council where their assistance will be valuable, representatives of the Professional Associations may be appointed; such representatives on any Committee to be not more than two in number, their appointment to be made by the Council on the nomination of the professional members of the Council.'" This was carried.

The reports of the Safety and Welfare Committee were considered after lunch, and that dealing with suggested alterations in the draft regulations for woodworking machinery was first dealt with. Mr. Forsdyke moved: "That the report be received, but that consideration thereof by this Council be deferred pending an opportunity being given to those constituent bodies which have lodged objections against the original draft to consider the amended draft and to report to the Council." This was finally passed in spite of various objections on the part of those who considered that sufficient time had already been given, and that it was highly desirable to get the regulations enforced as soon as possible.

Reports on silicosis among stonemasons and on the proposed safety regulations for building operations were also adopted.

The next meeting will be held in London on November 10 and 11.

Details of Science and Technical Buildings

On pages 230, 231 we illustrate details of typical fitments for a chemical storeroom. This is the sixth of the series of drawings of science and technical buildings which have been specially prepared for this JOURNAL by Messrs. A. W. S. and Kenneth M. B. Cross.

It is desirable to provide ample storage accommodation in close proximity to chemical laboratories both for the apparatus to be used in the experiments and also for the chemicals of which a considerable stock is usually kept. Separate rooms should be devoted to the storage of apparatus and chemicals to avoid overcrowding and confusion, and different types of fittings are required in each. Cupboards, drawers, and open shelves of varying sizes dependent on individual requirements are necessary for the adequate disposal of apparatus. In the illustration typical cupboards of a useful height, with adjustable shelves and double doors, which are sometimes glazed, are shown ranging with a nest of drawers, the top drawer in each case being fitted with wooden divisions for the storage of smaller and more delicate apparatus.

A typical series of shelves for the reception of the chemicals in the second storeroom is also illustrated. These shelves should be solidly built, with the addition of a fillet fixed along their outer edge, and should be spaced at diminishing heights to allow the larger and heavier vessels to be kept near the floor.

A small working-bench at which students may compound their reagents is often required in the chemical storeroom, and it is fitted with water standards and a sink as seen in the illustration.

Latest List of New Inventions

Latest Patent Applications.

20642.—Boyd, W.—Shuttering devices concrete-building construct August 3.

20650.—Hartmann, J.—Roofs, ceili etc. August 3.

20757.—Leclercq, A.—Central heat installations, etc. August

Specifications Published.

167017.—Bareth, G. Küchler.—Hol building-blocks and walls structed therefrom.

Abstract Published.

164825.—Bridges. — Williams, R. 13 North Villas, Camden Squ London.—In a bridge arch centre line is determined b set of tables which give ordinates and abscissæ also the thickness of the ring and thrust at the cr and are based on the maxin loading the arch is to sust The line of thrust for this l ing then coincides with centre line, and the arch h minimum volume and we for a given span, rise, and l ing. The backing is de mined to suit the line of p sure, but may be omitted. arch is specially applic where the dead load is n greater than the live load, may be built of masonry, b concrete, or reinforced crete.

The above particulars are specially prepare Messrs. Rayner & Co., Registered Patent Agen 5 Chancery Lane, London, from whom readers o Journal may obtain all information free relati patents, trade-marks, and designs. Messrs. Rayner will obtain printed copies of the published specific and forward on post free for the sum of 1/- each.

R.I.B.A. Intermediat Examination

With regard to the revisions mad the R.I.B.A. in the list of Testimoni Study for the Intermediate Examina Mr. Ian MacAlister, the secretary, us to announce that Testimonies of S prepared under the *old* syllabus wi accepted for approval by the Boa submitted prior to the next Interme Examination, to be held in June, Appended are the revised Testimoni Study for this examination :—

1 and 2.—Two sheets showing the a cation of one or more of the orde architecture to a building. A ge drawing of the building to be given o sheet with details on the second.

3, 4, and 5.—One sheet of deta Classic ornament from the round, o sheet of Mediæval ornament—free drawing from the round. Two shee measured drawings of an existing b ing or portion of a building to be sel by the candidate, with the plotting sketches.

6, 7, and 8.—Three sheets of wo drawings of a building of moderate d sions showing clearly the constructi floors, roofs, joinery, etc. The ge drawing to be drawn to the scale o to 1 in., with ½ in. and full-size det

The Week's News

Upton Housing Loan.

he Upton R.D.C. have decided to ow another £25,000 for housing.

roposed New Bridge for Durham.

he erection of a new bridge is proposed Blaydon, near Newcastle.

Housing at Newcastle (Ireland).

he U.D.C. have decided to raise a of £1,200 for housing.

Stourport Housing Scheme.

loan of £25,000 to complete the sing scheme is being raised by the .C.

Death of a Liverpool Builder.

Ve regret to announce the death of Peter Tyson, of Liverpool, chairman he firm of Tysons (Contractors), Ltd.

Melton Mowbray Corn Exchange.

xtensive alterations are to be carried to the Melton Mowbray Corn Exıge.

Housing at Hadleigh.

adleigh U.D.C. have decided to apply he Ministry of Health for sanction loan of £5,000 for housing.

Beeston Housing Loan.

eeston U.D.C. are applying to the lic Works Loan Board for £10,000 he erection of houses.

Housing at Repton.

he R.D.C. have decided to apply to Public Works Loan Board for ooo for the erection of houses.

New Bridge for Oxfordshire.

will cost the Oxfordshire and Berk- Councils £31,000 to rebuild Goring Streatley bridge.

New School for Darlington.

arlington T.C. are applying to the stry of Health for sanction to a loan 3,470 to purchase a site for a new ol.

Newcastle War Memorial.

r. Charles L. Hartwell, A.R.A., has appointed by the War Memorial mittee as sculptor for the war ıorial.

Darfield Church Restoration.

ınds are to be raised for re-hanging bells of the Parish Church, Darfield, for a general restoration of the ior of the ancient building.

Burnham-on-Crouch Improvements.

further sum of £4,250 is to be borrowed he U.D.C. for housing. The council also decided to apply for sanction loan of £1,950 for new pumping ıinery.

Housing in the West Riding.

emsworth R.D.C. have in hand the ling of 3,500 of the 85,319 houses ded in the National Housing Survey eeded in the West Riding of York-

he King and the Deeside Memorial.

ıe King is to defray the cost of the orial to the upper Deeside men l in the war. The design is by Mr. am Kelly, A.R.S.A., President of Institute of Scottish Architects.

Historic Site to be Sold.

Telham Court, Battle, Sussex, which is to be sold, stands on the hill where William the Conqueror's army encamped before the Battle of Hastings, in 1066.

"Sky-scraper" Church for Chicago.

A "sky-scraper" church is to be built in Chicago by the Episcopal Methodists. The church, to be surmounted by a spire, will have accommodation for 800 in the auditorium and a balcony to seat 400.

Cost of Housing.

Sir Alfred Mond has stated in the House of Commons that approximately £140,000,000 has been raised by local authorities in England and Wales for housing purposes.

Glasgow Housing.

57,000 houses are required in Glasgow. Schemes for about 4,600 houses are to be proceeded with shortly by the Corporation, who also contemplate the erection of a further 4,000.

Worcestershire War Memorial.

It is proposed to erect the Worcestershire war memorial in the Cathedral yard at Worcester. The memorial—a replica of the Herefordshire Cross—is proposed to be constructed of Portland stone, at a cost of £1,912.

Reopening of the Hotel Belgravia.

In October next the Hotel Belgravia, Grosvenor Gardens, London, is to be reopened as an hotel and restaurant. During the war the hotel was the headquarters of the American Military authorities in London.

Basingstoke War Memorial Gateway.

An appeal is being made by the War Memorial Committee for a further £1,403, in addition to the sum already in hand (£479), to carry out the War Memorial Gateway as originally designed by Mr. J. Arthur Smith, F.R.I.B.A.

New Dominican Priory for Oxford.

The foundation stone has been laid of a new Dominican priory at Oxford. The site is on the western side of St. Giles, opposite St. John's College. There are on it three large residences with spacious gardens at the rear.

Lewisham's Village Pound.

Lewisham's village pound is to be sold. Situated at Rushey Green, Catford, it is one of the last reminders of the feudal days of the Manorial Court, and of the pound-keepers. A Lewisham trades council proposes to acquire the pound as a site for a trades hall.

More Houses for Bolsover.

Bolsover U.D.C. have received the sanction of the housing commissioner to erect eight non-parlour houses at £686 4s. each, and 22 parlour houses at £738 16s. each, including fencing, footpaths, and drains. Application is being made to the Ministry of Housing for permission to raise the necessary loan.

Sir Arthur Evans's War Memorial.

Sir Arthur Evans, formerly keeper of the Ashmolean Museum, has erected a war memorial in the grounds to his residence at Youlbury Boar's Head, near Oxford. The monument commemorates about a dozen young officers who as children were at Youlbury. Three of the officers were nephews of Sir Arthur Evans.

A Motor Track for Paris.

Paris is to have a race-track modelled more or less on the Brooklands pattern. The work will be put in hand next month. The track will be over $4\frac{3}{4}$ miles to the lap, including two straight runs of nearly $1\frac{1}{3}$ mile. The surface is to consist of a concrete foundation, a layer of end-set bricks, and a top-dressing of concrete.

Lemberg Fair.

A fair is to be held at Lemberg from September 25 to October 5. The exhibits will include machinery, ironwork, technical supplies, oil industry, metallurgy, furniture, building material, lighting apparatus, etc. Enquiries regarding space, etc., should be addressed to Targi Wschodnie (Eastern Fairs and Market, Ltd.), Lwow, Poland.

Sir Charles Ruthen to Inspect Housing Schemes.

Sir Charles T. Ruthen, Director-General of Housing, proposes to make an official inspection of housing schemes in a number of the principal industrial centres in the country. During his tour Sir Charles Ruthen will visit the following towns: Birmingham, Manchester, Liverpool, Gateshead, Newcastle, South Shields, and Tyneside areas, Sunderland, Leeds, Sheffield and Nottingham.

St. Martin's-le-Grand.

In the House of Commons last week Mr. Glanville asked the Postmaster-General if the site of the old General Post Office in St. Martin's-le-Grand was going to be disposed of, or did the Government purpose to leave the valuable land vacant for many more years?

Mr. Pike Pease, in reply, said that steps were being taken to dispose of the site, but up to the present no adequate offer had been received.

Slump in Reading Cottage Properties.

At the sale at Reading of a portion of Sir George Russell's Swallowfield Park estate there was no demand whatever for cottage property. A pair of old-fashioned cottages with large gardens failed to receive the auctioneer's suggested bid for £50. Two brick-and-tiled cottages, each containing four rooms, fared similarly, whilst £45 was the highest bid for two detached cottages bringing in a joint rental of £10 4s. per annum.

Restoration of Chester Cathedral.

An appeal is being made by the Dean of Chester for £25,000 to carry out restoration work, etc., at the cathedral. The refectory is to be made capable of seating about 600 people, and the north wall and the tower of the cathedral are to be restored. In this refectory is a very fine Early English "Lector's Pulpit," with a staircase in the wall. To-day these pulpits are seldom met with in England. The cathedral embraces details of various styles from Norman to late Perpendicular.

37th Division Memorial for Monchy.

On September 15 a memorial is to be unveiled at Monchy-le-Preux to commemorate the part taken by the 37th Division in the fierce fighting at Arras in April 1917.

Maidstone Town-Planning Scheme.

The T.C. have notified their intention to prepare a town-planning scheme for Allington, Aylesford, Boxley, Loose, Boughton Monchelsea, East Farleigh, and East Barming. Opposition is being made to the scheme by three rural district councils.

The Royal Exchange, Manchester.

The King is to open the new Royal Exchange, Manchester, now nearing completion. The extended building has a ground space of 8,222 square yards, and the "floor" covers the whole site on one level, with the exception of the walls and staircases. Features of the Great Hall are two large and four smaller glazed domes which give light to the interior, the pinnacles of the large domes rising to a height of 130 ft. above the street level.

Glastonbury Abbey Excavations.

The excavations at Glastonbury Abbey have been resumed since the beginning of July by the Somersetshire Archæological and N.H. Society. The work at the Loretto Chapel is nearly completed, and more of the pavement of the Northern Transept has been found. An excavation to the north of the existing Lady Chapel has been begun, and the base of the pillar, which, according to Spelman, in the first volume of his "Concilia," marks the position of the Church of Joseph of Arimathea, has been discovered.

Islington Housing Scheme Progress.

The Islington Borough Council schemes for the erection of new flats are likely to be completed in advance of the dates stipulated in the contracts. The foundation stone of the Halton Road and Canonbury Villas buildings was laid in January last, and, according to the terms of the contract, they are to be ready by October, 1922. The two blocks consist of 63 four-roomed flats and 105 three-roomed flats, and will give accommodation to 672 persons. The approximate cost of the houses is £192,378. On the Highbury Grange site 107 flats are to be built. The buildings will house 428 persons, and the cost is estimated at £169,518 The contract expires in September, 1922.

Twelfth-century Font Discovered.

A twelfth-century leaden font has been discovered under peculiar circumstances in the church of St. Margaret, Lower Halstow, near Sittingbourne, Kent. During the war the concussion caused by anti-aircraft guns cracked the plaster round the basin of the font. This was removed, and underneath was found the leaden font in splendid preservation. The font is supposed to have been encased in plaster to protect it from Cromwell's soldiers. The bowl is tub-shaped, and is ornamented with a Norman arcade containing full-length figures.

The President of the R.I.B.A. and the Allied Societies.

Mr. Paul Waterhouse is arranging to pay a series of visits to Allied Societies of the R.I.B.A. during the coming year. On September 20 he will be present at an At Home given by Sir William Portal, Baronet, President of the Hants and Isle of Wight Architects' Association, and the members of the Association at Winchester. The exhibition of the R.I.B.A. drawings will be on view, and the President will deliver a brief address on matters relating to the future of the profession. A visit to the Bristol Society of Architects has also been arranged.

Messrs. Williams and Williams, Ltd.

Mr. A. L. Tester, A.M.I.M.E., who joined the firm of Messrs. Williams and Williams, Ltd., of Chester, engineers and metal casement manufacturers, towards the end of last year, has just been appointed sales manager to Mr. B. A. Williams, the managing director. Mr. Tester will control the sales organization from the Sardinia House office in Kingsway, W.C.2. It is the practice of Messrs. Williams and Williams to attach expert casement fitters permanently to each branch office, so that every window can be adjusted and left in perfect working order with the minimum amount of trouble to all their clients.

Competition News

Paisley War Memorial.

War memorial. Premiums £250, £200, and £150. Assessors Sir Reginald Blomfield, R.A., and Mr. D. Y. Cameron, R.A. Apply Town Clerk, Paisley.

Partick and Whiteinch War Memorial.

War memorial for Victoria Park to cost about £2,000. The successful competitors will get the work. Second and third premiums £20 and £10 respectively. Apply Mr. James Arthur, Hon. Secretary, 173 Byres Road, Glasgow. Closing date August 27. (Banned by the R.I.B.A. and S.A.)

Chelmsford War Memorial.

War memorial. Premiums £10 10s. and £5 5s. Apply Mr. R. C. Knight, Secretary to the War Memorial Committee, Municipal Offices, Chelmsford. Closing date August 31. The Society of Architects requested their members not to take part in the competition without first ascertaining from the Society that the conditions have been approved by the Council.

Wandsworth Park.

Laying out as a park and recreation ground about thirty-one acres of land between Garratt Lane and Buckhold Road, Wandsworth. Premiums 100 gs., and 50 gs. Apply Mr. P. Dodd, M.Inst.C.E., Borough Engineer, 215 Balham High Road, S.W. 17. Deposit one guinea. Closing date September 5.

New Hospital Buildings at Cairo.

New buildings of Qasr el' Aini Hospital and School. Accommodation 1,225 beds. Assessor Mr. John W. Simpson, PP.R.I.B.A. Apply, enclosing che or draft for three Egyptian pounds, o equivalent in sterling, to the Secret R.I.B.A., 9 Conduit Street, Lon W.1. Closing date for preliminary c petition October 3.

Birmingham Hall of Memory.

Hall of Memory. Cost not to ex £30,000. Premiums £500, £300, and £ Assessor, Sir Reginald Blomfield, Competitors must have occupied of in Birmingham for the past six mon Closing date October 12.

Society of Architects' Licentiates' Students' Competitions.

Quarterly Competition ending Oct 31, 1921. Measured drawings, con ing of one sheet to one-eighth scale, sheet to half-inch scale, and one she enlarged details. They must be delive carriage paid, at the Society's off 28 Bedford Square, W.C.1, by October together with the original sketches notes. A first prize of the value of £6 and a second of the value of £4 4s more than ten competitors send in t drawings, may be awarded, varied withheld, at the discretion of the Cou The Architectural Scholarship, value for not less than three or more than imperial sheets of measured drawings details, made between January 1 September 30, 1921, of some buildin historic interest. Licentiates and Stud of the Society may obtain further de from the Secretary at 28 Bedford Sq W.C.1.

Air Post Stamps.

The Junior Philatelic Society instituted an open competition for signs appropriate to a British air stamp, the first prize being £20 and second £10. The designs will be exh ed at the London International St Exhibition, which is being organize the society for Whitsuntide, 1923. dimensions of the drawings, when redu must be approximately 22½ mm. 18½ mm. or 22 mm. by 38½ mm., sizes of the current British stamps, the design must contain features ch teristic of the British Isles and inc the inscription "Air Mail" and the v 1d., in figures and words. Further ticulars may be obtained from the secretary, London International St Exhibition (1923), 44 Fleet Street, E

Alston War Memorial.

The design of Messrs. Parkin, Crosby Ravensworth, has been sel by the Alston War Memorial Comm The memorial will take the form obelisk.

The Victory Scholarsl Competition 1921

The winning and other designs i above competition are now on exhi at the Society of Architects' head-qua 28 Bedford Square, W.C.1, from 10 to 5 p.m. daily, and will remain on until the closing date is announced. hope to publish illustrations of the ning designs in our next issue.

ednesday, August 31, 1921. Vol. LIV. No. 1391

THE ARCHITECTS' JOURNAL & Architectural Engineer

With which is incorporated "The Builders' Journal"

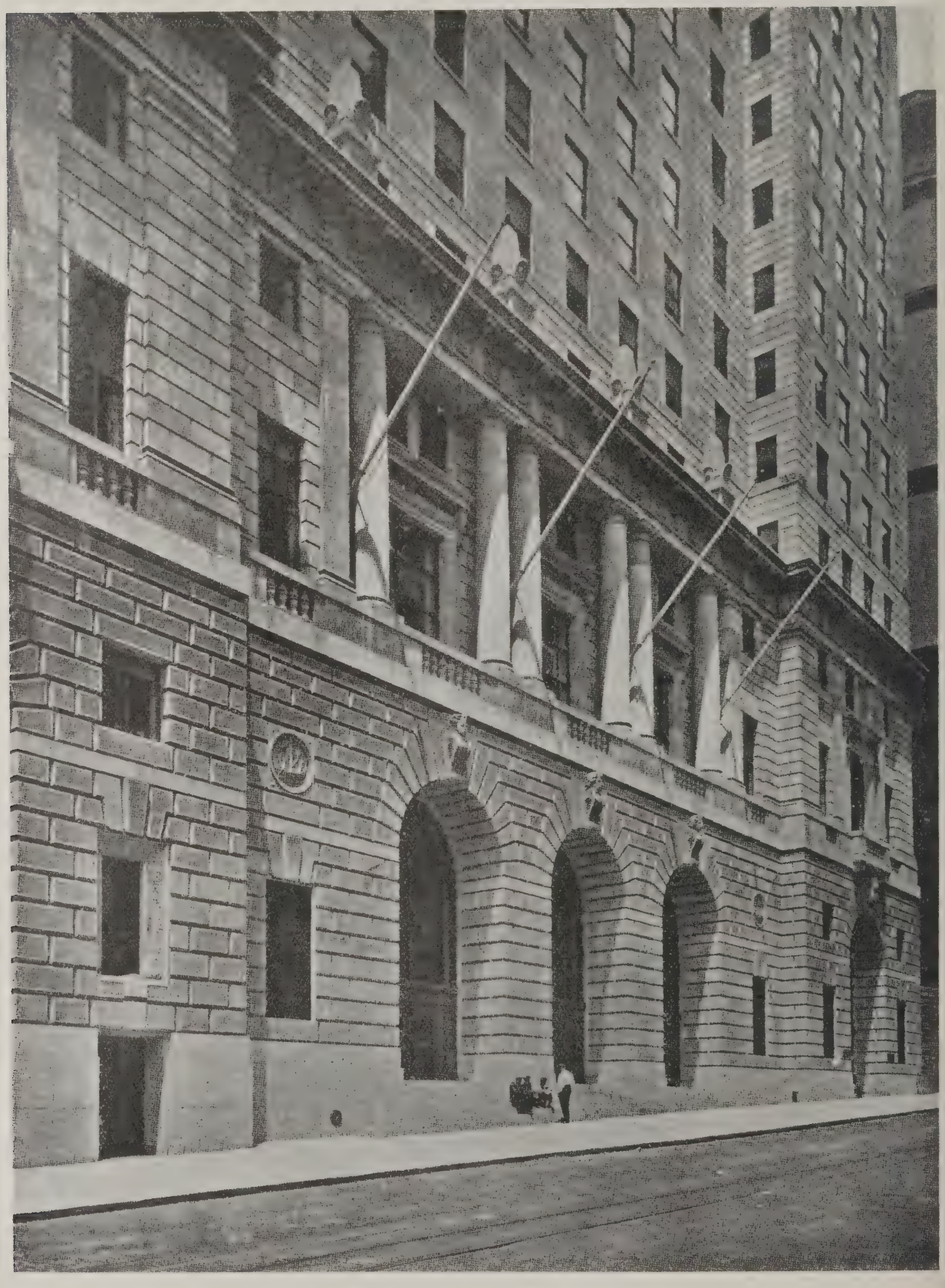


A MONUMENT IN A COUNTRY CHURCHYARD.

27-29 Tothill Street, Westminster, S.W.1.

Modern American Architecture. 24.—The Cunard Building, Bowling Green, New York : Detail of Lower Stories

Benjamin Wistar Morris, Architect. Carrère and Hastings, Consulting Architects



The new building for the Cunard Steamship Company, just completed in New York, exemplifies the application of classical motifs to a skyscraper. The massive courses of rusticated stonework, the monumental arches, and the colonnade of coupled columns above, give an appearance of great strength to the base of the building. An appreciation and some further illustrations of the work appear elsewhere in this issue.

THE

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The Report on the Cost of Building

N the report issued last week by the committee appointed (with Mr. J. Stanley Holmes, M.P., as chairman) to inquire into the reasons for the high cost of building, there are no startling conclusions. simply confirms in every detail what everybody knew ore the committee was formed. That "the need for rkmen's houses is great" is such a trite and pusillanius observation as only a Departmental Committee is nsed to make, and in keeping with it is the equal banality the further remark that these essential houses must be vided "at a sufficient rate under some satisfactory icy of finance, aiming at their provision on an economic is by ordinary means." This is not the advancement a helpful constructive policy. It simply reaffirms a erable truth, which, however, may have been obscured the dust of conflict.

Nor is it, alas! aught but the baldest of truisms that the te policy adopted for the provision of working-class ses has had a prejudicial effect on the cost of building. course it has; what else was to be expected? On econo- as well as moral, on psychological as well as on purely terial grounds, that effect was inevitable, Government rantees and Government control in such affairs being ays more or less demoralizing. It is no uncommon nomenon that such interference with normal conditions kens the enterprise, saps the energy, destroys the iative, and sophisticates the sense of responsibility— to say sears the consciences of corporations as well as individuals. A sequence of such causes and conseences is plainly and painfully apparent in the following agraphs, which, on the whole, are the most pithy sages in the report. The committee have concluded t the policy adopted for the provision of workmen's ses has had a prejudicial effect upon the cost of building, ecially in the following respects :—

(*a*) By the utilization of the local authorities as the nts for providing houses under arrangements which ricted their financial responsibility to the produce of d. rate, thus failing to establish any community of erest between the State and the local authority in uring economy.

(*b*) By the flooding of the market—already congested by son of great demands and depleted powers of production—with an unprecedented State-aided house-building gramme in excess of the building resources then avail-e, and by rendering the congested conditions even se by the restriction of the period during which such te aid as was necessary would be forthcoming."

t is very late in the day to proclaim these doctrines. ey are not daringly heterodox innovations. They were erally held by impartial publicists. Neither profound wledge of public affairs nor extraordinary astuteness necessary to the prediction that such effects must ow such causes, as the night the day. As a set-off inst the disadvantages particularized, the committee ge that the houses now being built are of a superior standard to average pre-war houses—superior in accommodation, construction, amenities, and domestic conveniences.

All this, then, may very well be, and certainly should be, and up to a certain point the statement does not invite contradiction. In their first flush of enthusiasm, the Ministry of Health prescribed and exacted a relatively high standard of planning; but exceedingly awkward questions of finance soon arose to check what were frowned upon by self-styled advocates of "economy"—that is to say, of meanness—as extravagant if not Utopian ideals, and the Ministry soon found itself condemned to adopt a cheeseparing policy. Spare the cash and spoil the house; and the Great Adventure, the high hopes of the housing enthusiast, are but as Dead Sea apples. Contemplating this later phase of a movement that, to say the least of it, has singularly failed to redeem its early promise, and in every direction has disappointed hope, it is difficult to share to the full the committee's optimism as to improvement in the standard of housing. True, it is to the credit of the Ministry that, in the earliest stages of the movement, the Ministry took the courageous and altogether admirable course of insisting on architectural design and on unequivocally respectable standards of planning, accommodation, and construction; but financial exigencies, alarmingly exacerbated by "stunt" newspapers, have brought to naught a scheme that promised well for great improvements in the design and construction of working-class dwellings, and the broad "a priori road" on which the Government set out has, following many a dismal precedent, narrowed rapidly to a squirrel-track disappearing up a tree; which is where unfortunately the amiable and well-meaning Dr. Addison has at length ended his strenuous ministerial career.

In an investigation of this kind it was impossible to ignore the high cost of labour. This unfailing bugbear is, it seems, a many-headed monster; for the committee was malevolently stared in the face by production and transport of materials, inflation of wages to meet the greatly increased cost of living, the shortage of skilled workmen, and the very serious diminution of output as compared with the standard of it prevailing in 1914. All these conditions, especially the one last named, are rapidly dissolving. Prices are everywhere declining, and labour is assuming sporadically a much more reasonable frame of mind—and of body. Labour has, by resolving to work harder, anticipated the report in its trenchant observation that "the real and simple solution of the difficulty of the cost of houses—assuming a wise financial policy—lies in increased production."

Thus far the committee's report does not excite controversy. It is packed with commonplaces that break none of the rules of the grammar of assent; but employers will not relish its encouragement of the Guild system of building—a system that aims at the casual, if not the total, suppression of the contractor, who, however, would seem to have but little occasion to worry himself about the movement. For large undertakings the contractor's skill in

organization, his accumulated resources, and his special training, are simply indispensable; and the "speculative builder" who, until recently, had put up 95 per cent. of the dwellings for which clerks and artisans could afford to pay an economic rent or (through a building society) a fair purchase price, is either a capitalist himself or has the confidence of capitalists, and his skill in conducting such operations is highly specialized. Bolstered up by Government subsidies the guilds may succeed for a season. Thrown upon their own very inadequate resources, they are more than likely to come to grief with the speed of nose-diving. They are not likely, therefore, to retard "the restoration to normal competitive conditions" which the committee recommend, nor to rival and supersede the house-builder in those economical methods which, in the language of the report, "previously enabled him to supply the demand under competitive conditions."

This report, it will be seen, definitely, though delicately, gives the *coup de grâce* to the grandiose National Housing Scheme, which, begun with a tremendous flourish of trumpets, prosecuted at enormous expense, responsible for the recruiting of an army of experts who are now being ruthlessly scrapped, occupying weeks of the close attention of Parliament, expending enormous sums of money, setting the municipalities by the ears, raising among the workers expectations that were doomed to disappointment, is now finally fizzling out like a damp and malodorous squib. It is impossible to calculate what, from first to last, this futile firework must have cost; presumably an enormous sum, fortunately not ascertainable. Not that the money and the effort have been wholly wasted. To have produced so striking an illustration of the futility of State interference with industry is worth something; and to have shown the public—as the expenditure of £5,000 on competitive designs for national housing undoubtedly did—that architecture and small houses are not irreconcilably divorced, is worth much more than the money which, in 1917, the R.I.B.A. induced the Government to spend on this truly educative object.

But is there not a certain grimly humorous element in the findings of the committee? The State says, in effect, "Find out the cause of the high cost of building," and in effect the committee replies, "Thou art physician; heal thyself," and gives reasons for its reply.

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A Magnificent Skyscraper

With much envy and some reluctance we have often pointed to the exemplary character of modern American architecture. In their big buildings the Americans transcend us not so much in the matter of design as in that of execution; their men of business being lavish, whilst ours are parsimonious. We illustrate this week the latest instance proving this point. Mr. Benjamin Wistar Morris, architect, who had the advantage of consultation with Messrs. Carrère and Hastings as consulting architects, has made the Cunard Building at Bowling Green, New York, a skyscraper that is beautiful beyond cavil, in spite of its titanic size. This qualification applies, of course, only to the façade, where, however, the natural effect of gawkiness has been completely neutralized by an ingenious scheme of composition—more especially by the introduction of coupled columns, arched openings, and finely proportioned cornices, and by a very cunning gradation and recession of the top stories. It is the interior of the building, however, that will excite the envy of the British architect. Here architect, painter, sculptor, and craftsman have been evidently given free and full scope to do their best. They might not exceed a certain time-limit, but apparently they were not greatly restricted as to cost, and the result is that Mr. Ezra Winter has produced, on wall and ceiling, some of the finest and most truly artistic decorative effects ever seen in a commercial building. Certainly we have artists and craftsmen who are capable of doing at least equally fine work; but where are the commercial men who have the courage to commission them to do it? To that question it is not a very satisfactory answer that Mr. Frank Brangwyn, for example, might, if he chose, find on the Continent of America the fullest employment of his magnificent talent.

State Discouragement of School Building

Education is no fit subject for parsimony. Yet the Board of Education is again cautioning local authorities to cut down expenditure. Its recently issued circular is a deliberate discouragement of school-building, and is, therefore, lamentably short-sighted interpretation of the need for national economy. To starve education is not to practice economy. It is to yield indiscriminately to vulgar clamour. For seven years or more, school building in the country has been grossly neglected, and the Board of Education now threatens to intensify the evil by wholly blanketing "all substantial proposals, not already sanctioned, for the acquisition, extension, or improvement, of sites and premises, any part of the expenditure upon which will fall to be incurred during the financial year 1922–23." In a comparatively lucid interval the Board adds that particulars are not required of proposals the total cost of which will not amount to more than £1,000 in capital expenditure, or £50 in annual rent. To this poor-spirited document Mr. Fisher might well have added, "My power and not my will consents." As a real educationist (but a too complacent Minister) he must feel very acutely how great an injury the Government is inflicting on the country by robbing the children of adequate ways and means of education. To neglect or to hamper school-building in this way is to foster ignorance and inefficiency. The country needs more and better schools, and the Government is either wicked or demented to falter with so grave an issue.

"Don't be an Architect"

Mr. C. McArthur Butler's advice to those who think of becoming architects is—"Don't." But the advice, like that of Mr. Punch on a subject of almost equal gravity and importance, is sure to be rejected by those to whom it is specifically addressed. In both cases, however, it may have a deterrent effect on those who have not already made up their minds about the yea or nay of it. Very few young and ardent persons can be induced to pause on the brink either of matrimony or of a profession. Others, however, who have not been forced by fate to such an extremity may be disposed to ponder such advice and even to act upon it. Unhappily, Mr. Butler's assertion that the profession, being an open one, "is invariably overcrowded largely with the wrong type of man, who has picked just enough knowledge to be a danger to the community" cannot be contradicted. His admirable article in "The Daily Graphic" of August 23 shows a red light to the parents and guardians who might not otherwise be aware that the signals are against them and there is danger on the line. Mr. Butler's moral is perfectly sound. It is, by inference, that the profession would not be so deplorably congested if those only who were properly qualified were permitted to practise it.

Miners' Houses in South Wales

It is refreshing and reassuring to find that Professor Patrick Abercrombie was a member of the South Wales Regional Survey Committee, which has just issued its report on miners' dwellings in South Wales. It is refreshing because the committee seems to consist mainly of engineers; reassuring, because Professor Abercrombie is not only in the front rank of accomplished town-planners, but is extraordinarily skilful in the expression and presentment of the soundest views on the subject, and has a wonderful knack of winning acceptance for those views. If the recommendations of the committee are adopted, as they no doubt eventually will be, we will hazard the belief that most of what is best and most humane in them is due to the influence of Professor Abercrombie; who will thus have illustrated once more the high social and ameliorative service that, given the opportunity, an accomplished architect and town planner is competent to render to the community.

The National Housing Fiasco: Second Instalment

By KENNETH M. B. CROSS, M.A. (Cantab.)

IN a previous article under the above heading (published in THE ARCHITECTS' JOURNAL of May 25, soon after the announcement of the resignation of Dr. Addison from the Ministry of Health), I pointed out that the Government housing scheme, open to criticism as it was in detail and as a whole, was little more than mere window-dressing for an easily satisfied electorate. It had been announced soon after the armistice that 800,000 houses were needed, and 350,000 were to be begun at once. Two years later, when, as the result of infinite effort, 45,000 of this number had been completed it was announced that houses were no longer needed, and Sir Alfred Mond was appointed to the leadership of the Ministry of Health virtually to wind up the affair.

The Reversal of Policy

It appears that this new policy is now being enforced broadcast throughout the country with only trifling and comparatively insignificant exceptions in the case of industrial areas. What excuse has the Government for this drastic reversal of policy? The only plausible reply would be that the excessive cost of building makes it impossible to erect houses that could be let at anything approaching an economic rent, and that the country cannot afford to pay the difference. But is the nation poorer now after two years of peace than it was immediately after the war, or has it taken the Government two years to realize that the cost of building is now greater than it was in pre-war days? The ways of our trusted leaders and governors are sometimes tortuous and exceedingly difficult to follow; two years ago there was, so it was announced publicly, a shortage of very nearly one million houses; to-day, after building 45,000, there is no longer a shortage. What does it all mean, and where will it all end?

False Economy

There is probably only one solution to be offered; in 1918, in view of the fact that large numbers of people were homeless, the housing question presented an attractive bait for vote catching. Now new catchwords are in vogue, and when mention is made of Education, Housing, or other works of a public nature that, tending materially to improve the mental and physical status of the community as a whole, ought to be the first charge on the national exchequer in a well-organized society, it is stated that drastic economy must be enforced at once. It does not lie within the province of writers in technical papers to discuss matters of political importance foreign to the subject matter upon which they are engaged; but the fact that millions should be spent in Mesopotamia, and on unnecessary and provocative armaments to the detriment of the health, happiness, and well-being of millions of our fellow citizens at home, seems to call for energetic and loud-voiced protest. The greatest nation is that nation which comprises the largest number, proportionate to its population, of happy, healthy, and intelligent citizens, and not that country where the worst slums are to be found.

The dreary belt of bricks and mortar, miles deep, of so-called human habitations that to our lasting shame surrounds our capital, the great ulcers dotted over our fair countryside, which are our collieries and so-called manufacturing towns, may make us ask wherein does our true greatness lie. Be that as it may, the fact remains that the Government, professing reasons of economy in the public interest, have abandoned their housing policy in the most shameless and shifty manner. Every one even remotely connected with the building industry will acknowledge that the cost of building at the present day is high; but it is not higher than it was when the late Minister of Health and his confederates in the Cabinet started on their great campaign, and heralded the advent of the New Jerusalem; and it must be added that, in view of the normal annual increase in the housing shortage, the deficiency of houses is not now appreciably smaller than it was then.

A Departmental Committee on the high cost of building working-class dwellings has recently issued its report; and in a few preliminary remarks the committee state that "Nothing that is said in their report must be taken as expressing the view that houses in great numbers are not absolutely essential in the interest of public health and humanity." The committee suggest that the policy adopted has had a prejudicial effect on the cost of building, especially by using local authorities as the agents for providing houses and restricting the local authority to the produce of 1d. rate, and also by flooding the market either with an enormous building programme or by intensifying the congested conditions by the restriction of the period during which State aid would be available

High Cost of Building Materials

Here we might add that the cost of certain building materials has been kept at a monstrous and purely artificial price through the machinations of rings, combines, and other forms of monopoly to the advantage of certain business interests and to the detriment of the well-being of the public as a whole. The committee is of the opinion that the standard of house now being built "is superior in accommodation, construction, amenities, and domestic conveniences" to those built before the war, and though the standard of house is not extravagant they do not think that more economical houses could have been obtained with regard to plans, specifications, etc. In the view of the committee the high cost of labour has been the principal cause of the high cost of building houses. They had no animus against labour, but were firmly convinced that the present conditions are unsatisfactory, and that the co-operation of labour is essential to any lasting scheme for securing greater output and, consequently, lower cost of production. They were impressed with the moderation and fairness of the labour views expressed. Finally, the committee ventured the opinion that the high-water mark has been reached in the price of materials, and that a downward trend of prices has now set in. They think that the demand of labour to undertake responsibility for the provision of houses should be encouraged, referring in this respect to the Guild system and its possibilities in securing greater economy in building.

The Guild System

There is much to be said, and as a matter of fact much has already been said, for and against the Guild system, but for the ideals of the genuine Guildsman there can be nothing but praise from those unprejudiced by antiquated grooves of thought or unbiased by class feeling. The guilds have issued a challenge not only to the building world, but to the whole system of competition in industry; a challenge on a plane higher than is usually associated with modern industrial life; a challenge that no architect or other person interested in the creation of beautiful building can afford to ignore.

The Cunard Building, New York

THE latest skyscraper to be erected in New York is the new Cunard Building, which has just been completed from the designs of Mr. Benjamin Wistar Morris, with Messrs. Carrère and Hastings as consulting architects. The building is very fully illustrated in the current issue of our Transatlantic contemporary, "The Architectural Forum," to which we are indebted for the accompanying illustrations. The building, says Mr. Royal Cortissoz (who contributes an extremely interesting article upon it), is fairly fortunate in its site, the site whereon New Amsterdam was founded. Bowling Green gives the thoroughfare some width just before it settles down to the straight and narrow constriction of Broadway, and, for once, a skyscraper may be seen in something like perspective. In respect to style, Mr. Morris might be said to have taken his cue from the Italian renaissance, but he must have been influenced also, I think, by the spirit of the institution he had set out to house. The Cunard Line is unquestionably an institution. The ships first set going between Halifax and Liverpool in 1840 can claim, in their way, an alliance with the imperial fleets. Their captains touch hands, so to say, with the early mariners who laid the foundations of England's sea-power. Mr. Morris has kept this in mind. The first stages of his façade are exactly expressive in their simplicity and strength of a vast business historically identified with the sea, and rooted in a profoundly British tradition. The home offices of the Cunard Line in Liverpool, erected not long since, have a square-built, almost fortress-like aspect. Mr. Morris has followed in New York the same motives of weight and dignity. His massive courses of rusticated stone, broken by five monumental arches, may have an Italian precedent, but the perfect base they provide is in harmony with all the ideas of might lying behind the assertion that "Britannia rules the waves."

There is a charming decorative touch discoverable here. I say "discoverable," because one does not immediately notice the delicate carving on the two small window-frames flanking the southern entrance arch. When you do find it you are struck by its modest felicity, by the manner in which the artist seizes a chance to lighten the mass. As you savour the grace and elegance of this ornamentation and its happy effect at the particular spot, you realize also how "judgmatic" Mr. Morris has been. It is characteristic. He has placed decoration only where decoration has been fitting. There are no teasing details to disturb the calm of these noble walls. The arched base, like the pillared stage it carries, is refined very nearly to the point of austerity. As the façade soars to its height there is no decorative littleness to mar the broad and powerful sweep of the design. But all the time the architect has been studying modes of avoiding the arid, bare, box-like effect invited by the needs of fenestration. He recesses the façade slightly, along a width sufficient to embrace eight of the windows in his row of sixteen, and the composition reaches its renewal of pillared openings at the top without a moment's threat to its essential unity. He modulates his surface, if I may so express it, gains in light and shade, without having recourse to any specious "picturesque" expedients.



THE CUNARD BUILDING, NEW YORK.

The cornice counts only on the central portion of the building, and the full force of an ideal climax is thereby renounced. I cannot help regretting this. A great cornice is a joy by itself. But Mr. Morris has made the best of the situation imposed upon him by the zoning laws and the stepping of the topmost stories. If he could not let himself go in a cornice worthy of the base on which his building rests, he has at all events played with his varied roof lines so skilfully that they hold together and adequately crown the whole. It is the whole that registers his authority, the binding of the building, line and mass, into one beautiful chord, not only just in proportions, but lightly touched with the living quality that in such designs is so rare. Gone is the deadness, the inertia, the banality of the skyscraper, to which allusion was made at the outset of these remarks. Gone is the empty gesture of adventitious ornament. This is, indeed, organic architecture. The façade holds you by its beauty, and at the same time it persuades you that it is the outward, visible sign of an inward interest—a good plan.

One thinks again, as is proper, of the Cunard tradition, on entering the building. The northern arch gives access to a bank, the southern to the hall from which elevators rise. The three central arches are Cunard arches, dominating a vestibule which leads to the company's vast rotunda, and this vestibule might alone provide the theme for a homily on the genius of business. Business *is* business, as it is here understood. There are no extraneous facilities in the Cunard Building. There is no restaurant. There is no barber shop. There are no booths for the sale of papers, theatre tickets, flowers, and what not. The vestibule, with its coffered and delicately tinted

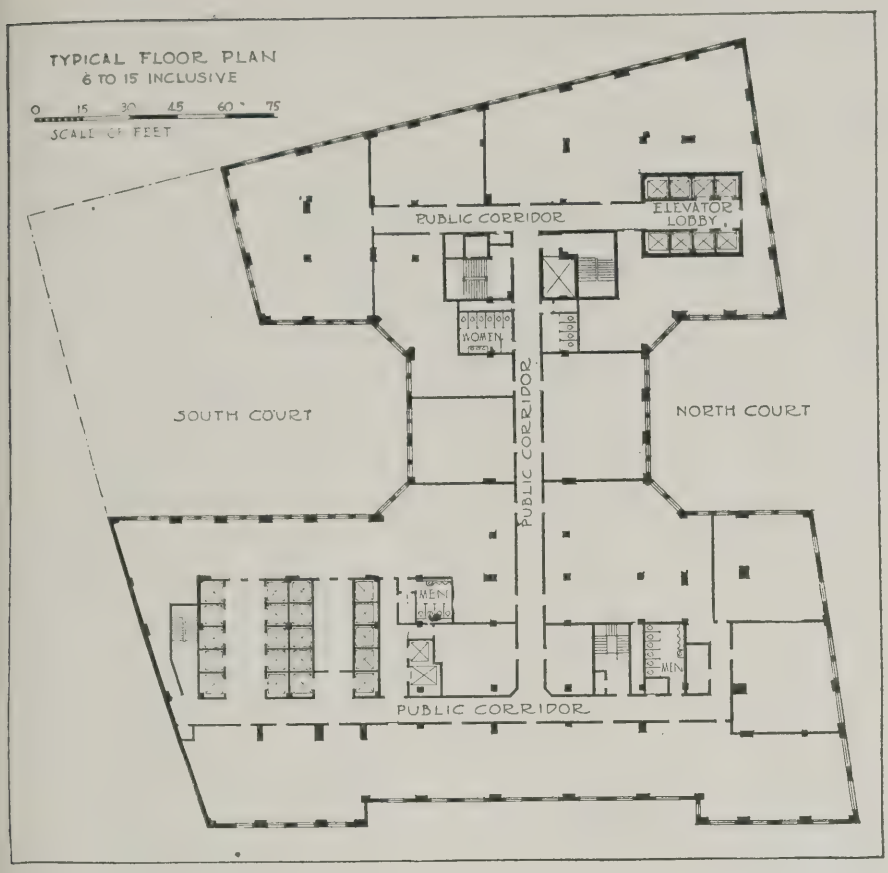
Modern American Architecture. 25.—The Cunard Building, Bowling Green, New York: View in Great Hall

Benjamin Wistar Morris, Architect. Carrère and Hastings, Consulting Architects



The Great Hall of the new Cunard Building is a truly magnificent apartment—immense in scale and monumental in treatment. From the floor to the soffit of the vaulted ceiling is a height of nearly 70 ft. On ceiling and pendentives are some extremely fine decorative paintings by Mr. Ezra Winter

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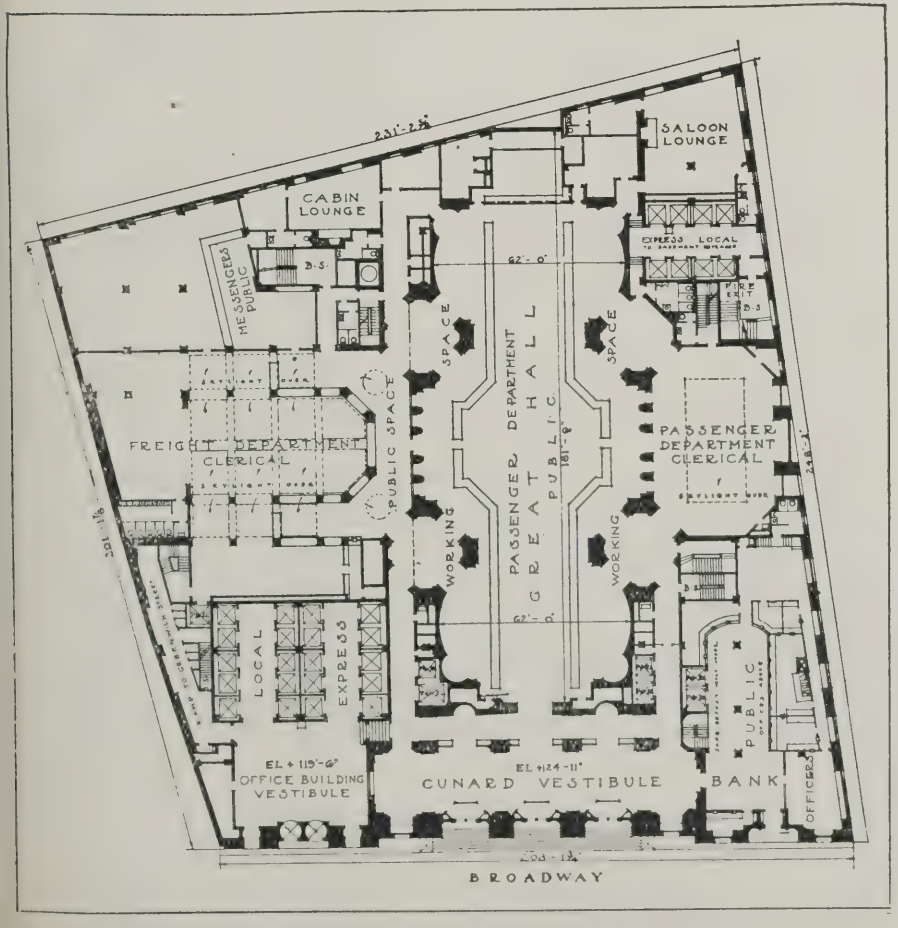


TYPICAL FLOOR PLAN

eiling, is as purely monumental as the talian palazzo interior it suggests. It ncludes, too, a feature which, like the xternal carvings I have mentioned, points to Mr. Morris's wise use of decoration when it is permissible. He has filled the spaces between the piers with magnificent iron grilles. Delicately designed, yet with the quiet force in them that befits the metal, they make the most discreet possible enrichment of the ensemble. I ought to mention at this point a detail in the floor plan which has a peculiar fascination. Crossing the vestibule we have to traverse still another parallel passage, much narrower, which terminates at right and left at passages running toward the centre of the building. The usefulness of these extra channels for circulation is obvious, and they have further a remarkable artistic charm. Sufficiently, but not brilliantly lighted, they bring an almost romantic element into the scheme, vistas both intimate and mysterious. There is nothing more engaging in the development of the plan than these quiet aisles, unobtrusively enframing the rotunda.

The rotunda, or great hall, is an imposing tour de force. McKim was Roman when he conceived the grand spaces of the Pennsylvania Terminal. Mr. Morris has been Medicean in the conception of his Cunard hall, a deep, domed chamber extending through to the back of the building. Here all the splendours of the renaissance break out on walls and ceiling. The ceiling, nearly 70 ft. from the floor, at once takes the eye and promises to keep it indefinitely; but I must confess that my own first impression took in as enormously important so humdrum a thing as the counter over which the public traffics for its tickets. It runs down the hall on each side, in straight lines, unbroken save beneath the central dome. The counter, like everything else in the room, is built of creamy travertine. It has a dark top of cork. Strictly considered, it is one of the structural fundamentals of the hall, without which business could not be carried on, and it enters accordingly into the architect's imaginative purpose. The pure linear effect of the thing is very beautiful, telling incessantly in the web of design that Mr. Morris has worked out. The unity of the façade comes once more into mind. The domes rest majestically on their piers. The piers are so composed as to make a well-knit sequence. From the four "luminary squares" which they form at the corners of the central dome, and from other sources, there comes an admirably diffused light. The travertine sets the whole in a mellow key and in Barry Faulkner's immense maps on the walls, showing the Cunard routes, and in Ezra Winter's paintings on the ceiling and the four pendentives, illustrating the history and mythology of the sea, this key is transmuted into sumptuous warmth. On the floor, in the centre, the points of the compass are indicated in marble, encircled by figures in low relief, a bronze modelled by John Gregory.

The succeeding floors above those filled by the Cunard Company are linked with exhilarating adroitness to an indispenable resource—the light. It is the architect's proud boast that there is not an interior office in the building, and I have seen how true this is. He has to thank the power of steel for the blessing. It permitted him to rear part of the structure directly above the dome in the rotunda, thus doing away with the usual central wall. The building has frontages on three streets, and, by good luck, contact with the light coming from a fourth. Deep courts in the middle of the north and south façades give to the offices in



THE CUNARD BUILDING, NEW YORK: GROUND-FLOOR PLAN

the centre as good light as pours into the street fronts. This arrangement of the plan secures also the most economical disposition of space for corridor circulation. The clustering of elevators at the south-east and north-west corners also perfectly contributes towards the handling of this latter problem.

The sub-dividing of floor space is largely determined, of course, in these modern buildings by the wishes of tenants. The spaces between corridors and window walls are cut up to please them. One firm will take an entire floor and, to a certain extent, frame its own plan. Exploring such a floor in the long series of 22, I noticed a change which is slowly establishing itself. The familiar ground glass was gone from the partitions. Clear glass had taken its place. It was as though the roof had been lifted from a busy hive, disclosing the activities in every last little cell. This transformation is due, I am told, to a development in latter-day "efficiency." It allows the executives to keep an eye on everybody, to see that the occupant of no desk is idle.

What an epic Balzac could have devised with a building like this for his theme! All manner of far-reaching implications suggest themselves in the grandiose nature of the façade and the great hall; the ineffable power of the machine which the whole building constitutes, the tremendous potentialities of the business units populating the place—and perhaps, too, the moral of those clear glass partitions. You cannot regard such a cosmos as an insensate thing of stone and metal. You feel in it the force of a living organism. So, I believe, Mr. Morris imaginatively grasped the idea of the Cunard Building from the start, and he has bodied it forth, in a great work of architecture, alive and beautiful.

Western Builders and Longer Working Hours

The half-annual meeting of the South-Western Regional Federation of the National Federation of Building Trades Employers has been held at Plymouth, under the presidency of Mr. John Wakeham, of Plymouth.

Consideration was given to the delay in bringing into operation the extended working week, and the Federation decided to press their determination to lengthen the working week from 44 hours to as near 50 hours as practicable.

The delegates had a delightful afternoon trip by motor charabancs over Dartmoor to Tavistock, where tea was taken.

Mr. Wakeham, responding to the toast of "Our president," which was proposed by Mr. F. Cowling, of Bristol, said that the advantages of the Federation were very evident at the present time, when wages reductions were being brought about on a pre-arranged sliding scale without any trouble.

The toast of "The Plymouth Association" was proposed by Mr. W. H. Nicholls, of Gloucester, and responded to by Mr. E. Endicott, of Plymouth.

The chairman proposed the toast of "The visitors," to which Mr. J. M. Soper, of Exeter, vice-president of the South-Western Federation, replied.

Correspondence

How to Educate the Public

To the Editors of THE ARCHITECTS' JOURNAL.

SIRS,—I have to thank you for your front page article in your issue for August 17, and for the fair manner in which you have treated my suggestions on the above subject.

After studying the letters from correspondents which you publish in the same issue, I conclude that the end I had in view when writing the article has been rather lost sight of. Your correspondents confine themselves mainly to their views on the means to that end. I would, however, like to defend my proposals.

Mr. Arthur Keen would warmly approve of an architect giving up his practice in order to become a speculating builder at the present difficult time, and Mr. Keen admits that he would become a public benefactor in so doing. But Mr. Keen goes on to imply that his change of occupation would render him unworthy to remain a member of the R.I.B.A.! One wonders what would be the views of such a "public benefactor" on the subject of registration.

However, my suggestion is not that an architect should be encouraged to become an out-and-out speculative builder. As a member of a firm composed of architect, builder, and financier, he would be left to the "architecture," and would even be relieved of most of the "business" which is so inseparable from the private practice.

Mr. William Woodward suggests that it would be a retrograde step for architects to touch "commercialism." But why? Architects are already business men, and sometimes very clever ones. Does the word "speculation" imply, necessarily, such things as shady dealings in illegal commissions or other forms of business immorality? I believe not. Mr. Woodward asserts that speculative building should be confined to the speculative builder, but does not support this view by any reasons. How then would he propose to raise the standard of speculative design, and so "educate the public"?

Mr. Woodward goes on to say "but that, of course, would not prevent the speculative builder employing an architect . . ." Surely this is the crux of the whole matter! The builder has no use for an architect, and probably never will have; but he will go on building harder than ever as soon as conditions make it possible for him to do so. An honourable exception to this rule (in modern times) was the late Mr. William Willett; would that there were more speculative builders like him!

Mr. Frederick Chatterton is very surprised to read that a speculator can get his work done with the sole aid of a "ghost," but, later in his letter, he comes to the conclusion that this is because "a good architect would be of no use to the promoters of a speculative building project." But there are many good architects who think they could be a great deal of use, and doubtless they are right; for in the design of buildings composition, grouping, proportion—and consequently beauty—cost nothing. With a few strokes of his pen a good architect could lessen the cost of almost any speculative design by simplifying the plan, and knocking out any unnecessary "features" and superfluous "ornament."

H. J.'s letter is as refreshing as R.L.S.'s "brawling mountain torrent"! If H. J. be one of the great number of unfortunate architects whose carefully nurtured young practice died during its parent's long absence abroad, then for him the choice of the "deep sea" seems to be the only alternative to travelling in pencil sharpeners, or some such boon to the busy.

The views of "Looker-on" are so agreeable that I can but congratulate him on his good fortune in "seeing most of the game."

"Provincial Architect" asks "how may we bring their unhappy brethren (the unenlightened speculators) to see the error of their way?" The answer to this is surely by architects collaborating with them in a friendly and sympathetic spirit. This suggestion is so simple and logical that one would hesitate before claiming it as being in any way a new idea—a view that is frankly expressed by "Provincial Architect."

I have endeavoured to find out the reason for public indifference to architecture and to indicate a remedy.

I am convinced that the suggested method of "Educating the Public" would, in time, have a good effect on our architecture, beginning at the lower (but not necessarily muddy) strata, with a corresponding effect for good on the mind of an intelligent public.

ARTHUR WELFORD, A.R.I.B.A.

To the Editors of THE ARCHITECTS' JOURNAL.

SIRS,—Mr. Arthur Welford's suggestion in your issue of August 3 that architects should take part in speculative building operations, is certainly unconventional, and may startle some people, but it is not, therefore, the less worthy of careful consideration, rather the contrary.

It is a subject difficult to discuss in general terms: there is, however, nothing whatever immoral, or, shall we say, unprofessional, in an architect embarking upon the enterprise of speculative building; it is, as Mr. Welford points out, a legitimate occupation, useful, and necessary.

Not every architect, however, possesses the requisite capital or the commercial ability to carry such projects to financial success. Many architects have engaged in such speculations with results unsatisfactory to themselves. We have the instance of Nash, whose skill as a town-planner, while employed as "Architect, Surveyor, and Agent to the Board of Woods and Forests," was so marked, entering into building speculations which were sufficiently successful to enable him to buy a property in Carmarthen, but in further speculations losing much money. The association of an architect and a builder in partnership offers much better prospects of commercial success, but this is a relation of some difficulty. There is nothing wrong in it of itself, but "all things are lawful to me, but all things are not expedient," applies.

With much that Mr. Welford says I cordially agree. A small minority of the

Room Fireplace

William and Edward Hunt, FF.R.I.B.A., Architects



The reception-room at Les Lauriers Restaurant is panelled with wood and plaster, the fireplace having some specially made Dutch faience tiles and a steel and brass stove. The mantelpiece and curb are in Breccia marble, the stairway leading out being of statuary marble. Some further notes are given on page 262.

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blic appreciates good architecture, but, he remarks, preaching to the converted a waste of time in this relation. The t majority of the public knows little l cares less about architecture; I have, refore, small faith in "propaganda," ether it takes the form of articles, tures, or the like, while press notices y advertise the individual. Critical iews in the non-professional press, if mpetent and honest, may of course good.

The best education for the public is the ect-lesson of good architecture, which time may train the eye to know good m bad. To attain a better general ndard of architecture involves the her education of the architect, so that may be able to design fit and beautiful ldings. During the past half century public task has become vitiated ough the influence of much bad archi- ture, or, rather, building, largely of a mmercial or speculative type. It is a t, nevertheless, that many people who not appreciate and even dislike good ign on paper, are converted through influence of the conception actually lized: the history of the modern glish Domestic School illustrates this. e undertaking of speculative work ght afford architects a larger opportu- y of showing how they could solve a ctical problem on true architectural es.

There is little doubt that the attitude architecture towards commercialism must become changed, if it is to hold its own in the future; but how that may best be brought about is a large question, and an interesting one, to which I do not feel competent to supply the answer.

It occurs to me that a syndicate of young architects, working on co-operative lines, might possibly accomplish useful results not altogether unremunerative to themselves. At all events, the experiment would be worth trying.

R. M. BUTLER, F.R.I.B.A.

To the Editors of THE ARCHITECTS' JOURNAL.

SIRS,—I am heartily in agreement with what Mr. Welford says in his article on "How to Educate the Public." The amount of work that is carried out without the aid of an architect is larger than is generally supposed; yet architects always get the blame for the poor standard of architecture. The fault lies mainly with the speculative builder, whose only aim is to get a good return on his money; he cares nothing for æsthetics. It is futile to blame the public for not appreciating good work when hardly anything is to be seen but bad. Obviously the only way to improve matters is to bring the speculative builder in touch with a good architect. This will mean that the builder will have to forfeit a small percentage of his immediate profits. He must be brought to realize that the sacrifice is worth while in the interests of public amenity.

H. G.

University College War Memorial

To the Editors of THE ARCHITECTS' JOURNAL.

SIRS,—In connection with the war memorial of the University College, London, and of the University College Hospital Medical School, two publications are now in course of preparation.

The first is the Pro Patria list, which now contains upwards of 3,000 names. We are anxious to make this as complete as possible. We therefore invite any of our alumni who served in the war, or their relatives, who have not yet received the Pro Patria questionnaire, to communicate with us at once.

The second is the War Memorial Album. This is designed to contain the records and portraits of our alumni who gave their lives in the war. Owing to change of address we have not yet been able to obtain full particulars or portraits of some 80 of our men who are known to have fallen. In the hope of reaching their relatives we ask leave to appeal to those who have not yet received the War Memorial Album Form to communicate with us at once.

GREGORY FOSTER,
Chairman of the War Memorial Committee,
University College,
Gower Street, London, W.C.1.



LES LAURIERS RESTAURANT, JERMYN STREET, LONDON: SUSPENDED BALCONY.
WILLIAM AND EDWARD HUNT, FF.R.I.B.A., ARCHITECTS

Enquiries Answered

The Editors cordially invite enquiries from readers who require information on architectural, constructional, or legal matters.

Answers to enquiries are in all cases the work of experts, and while every care is taken to make the replies thoroughly reliable, the Editors cannot hold themselves responsible for any inaccuracies that may inadvertently occur.

Correspondents whose difficulties involve possible legal proceedings are strongly urged to consult their solicitors before taking action on any advice that may be given.

Examination questions cannot be answered.

It must be understood that, as a rule, both question and answer will be published in these columns. The name and address of the querist must always be given, not necessarily for publication.

Correspondents are requested to be as brief as possible, and to write on one side of the paper only.

Sketching at the British Museum.

E.W.W. writes: "How may I obtain permission to sketch in the Greek galleries of the British Museum? I possess an R.I.B.A. introduction card for sketching. Would the production of this be sufficient?"

—You should apply to the Keeper of the Museum. Permits are issued in large numbers, and you should find no difficulty in obtaining one. In writing, you should state very clearly the purpose for which the permit is required, and to this end your R.I.B.A. introduction card should be helpful.

Granite Discoloration from Bronze.

"Memorial" writes: "Can you inform me of any method by which discoloration of granite can be prevented where this is caused by the weather effects on attached bronze."

—The discoloration from bronze should not be very great, but I know of no remedy for it. I fear, indeed, that none is in existence.—F.S.I.

Fees for Abandoned Housing Scheme.

"De jure" writes: "A sum on account has been paid for architects' services in connection with a State-aided housing scheme. The architects were appointed after G.H.M.4 was issued, and this memorandum was agreed upon with the local authority. The amount 'on account' was paid to the architects before Memorandum 31 was issued. Does the fact of the payment of this instalment of fees constitute a legal and common contract on the basis of G.H.M.4? Plans have been approved by the Ministry of Health, and the scheme is abandoned."

—Though these appointments are made by the authority of a Government Department, yet the ordinary rules of law and practice hold good. I am of opinion that the appointment by the local authority (with the approval of the Ministry of Health) does form a legal contract on the basis of G.H.M.4, that being the current basis at the time of making the contract. Any variation of the architects' appointment should now become the subject of mutual agreement between the parties.—F.S.I.

Untidiness in Londo Parks

Mr. Thomas H. Mawson, lecturer landscape design at Liverpool Univ sity, has written to "The Times" in c nection with the appeal of another co spondent for greater tidiness in Lon parks. The first correspondent obser that London parks had of late ye become, without exception, dumpi grounds for waste-paper and ot rubbish, in the main evidences of carelessness and callousness of parties picnickers, lacking alike the very ments of sensitive taste, knowledge public parks law and order, and all se of the meaning of economy in maint ance.

Mr. Mawson, in his letter, says: Wit the past few days I have been glad note that Sir Henry Craig has b moving in the House of Commons denunciation of the Government huts St. James's Park, another form of unti ness which for too long has destroyed pleasure of the public in our most be tiful London parks.

Taken together, these appeals leave agreeable impression that the public ceased to be acquiescent on the desec tion of so many beauty spots, which their best have given to London much its charm and character.

When, however, the paper nuisance been mitigated and the hutments moved, we shall still be a long way fr having overcome the most glaring amples of that "unkemptness" which in so many instances destructive of



BRIDGE AT WHITELEY PARK, BURHILL, WALTON, SURREY (IN CONNECTION WITH THE WHITELEY VILLAGE).
R. FRANK ATKINSON, F.R.I.B.A., ARCHITECT.
(*See also double-page Plate.*)



BRIDGE AT WHITELEY PARK, BURHILL, WALTON, SURREY. R. FRANK ATKINSON, F.R.I.B.A., ARCHITECT.

(See also double-page plate.)

at is best in English landscape architecture, which should always be suggestive of quiet, orderly restfulness, to which een lawns and vistas stretching away nder the trees give the dominating aracter.

Unfortunately, the past half-century s witnessed a departure from these fine alities in favour of artificial undulaons, crowned with wriggling shrubries, which, though interspersed with nding walks, invariably hide the park m the stranger without.

Even these shrubberies, created at ormous cost to the ratepayers, become e deposit-place for great quantities of per, straw, and other rubbish, creating times an indescribable and intolerable ggestion of slovenliness, and, incidenlly, giving the worst possible example official carelessless where the principle educative care and order should preminate.

I cannot refrain here from dragging in sentence, if not as to the shrubberies, rtainly as to the shrubs which enclose many London squares; for several nths of the year they deprive the neral public of opportunities for nuine refreshment at no gain to their ers. But to return to the London rks, now that so many have to be stored, would it not be possible terially to reduce the number of rubberies and introduce a little more ass, along with more trees to create ade and variety, together with an rangement of well-planned walks and menades?

These would better serve both the blic and the public taste than meanring walks leading to nowhere, which e often adorned with rustic seats, and en rustic shelters and bandstands, ich make our parks, in so far as they pend upon art and not upon nature, a word and reproach, and bring the art landscape architecture into ridicule. is change of *motif* and treatment, so ich to be desired, could be attained at ich less cost than the so-called imitans of nature which sometimes end in lgar caricatures.

Society of Architects' Victory Scholarship

This week we illustrate the designs of Mr. Bright Fraser, M.S.A., and Mr. J. H. White, A.R.I.B.A., which have been jointly awarded first place in the final competition for the Victory Scholarship, 1921, of the Society of Architects. The prize is £100 and the gold medal of the Society. A duplicate medal will be struck, and the money prize divided between the two successful competitors. The subject set was "A Fine Art School" to provide a common centre for the four arts of architecture, sculpture, painting, and engraving, and to form a nucleus for a general art collection. The school, to be erected on a level site, partly wooded, and covering a superficial area of 225,000 sq. ft., was to be one of three distinct groups, the ensemble forming a university of learning in an important city.

For the preliminary competition, held in June, the subject set was "A Façade for a Theatre."

The jury for the competition consisted of Messrs. Arthur Davis, Robt. Atkinson, A. E. Richardson, L. Sylvester Sullivan, and H. M. Robertson. A public exhibition of the drawings is now being held at the Society of Architects, 28 Bedford Square.

Yorkshire Architects' Sketch Club

The activities of the Sketch Club of the Leeds and West Yorkshire Architectural Society, which were suspended during the war, have now been revived. The object of the Club is to advance architectural knowledge amongst junior members of the Society, and at the same time give them an opportunity to meet for both educational and social purposes. To this end the members visit places of special interest, make sketches and measured drawings, and study the architectural features of notable buildings. At the end of each year an exhibition is held, and this year it is hoped that that event will take place in November, when the work of past and present members of the Society will be presented.

At the first of the revived excursions of the Club the members motored to Bolton Abbey, and spent the afternoon studying the various examples of doorways. Examples of different periods of architecture were pointed out and explained by Mr. George Mitchell, and afterwards the party motored to Ilkley, where they were entertained to tea by the President of the Society, Mr. John C. Proctor, at the Grange. Also present was Mr. Butler-Wilson, one of the oldest members of the Society.

It is hoped in subsequent seasons that the Continental visits will be revived. At present the students are confining themselves to local architecture.

The Bridge at Whiteley Park

In addition to designing a good deal of charming domestic work at Whiteley Park, Mr. R. Frank Atkinson, F.R.I.B.A., has also erected a delightful little bridge in connection with the village. This bridge (now illustrated by photographs and a working drawing) is mainly of brick, with stone dressings, and consists of three arches, the piers being in pairs, and resting on reinforced concrete rafts. The roadway is of steel girder and concrete construction. Each pier is distinguished by sturdy coupled brick pilasters, which help to support the stone string-course and parapet, the latter being graced by some attractive wrought-iron lamp standards. The method of construction adopted is worthy of attention. To employ two small piers instead of one solid pier across the total width of the bridge is an interesting departure from conventional practice, and should be economical both of labour and material. It is doubtful, of course, whether the method could be adopted for a large bridge, but its suitability for a small one, such as that at Whiteley Park, is manifest.

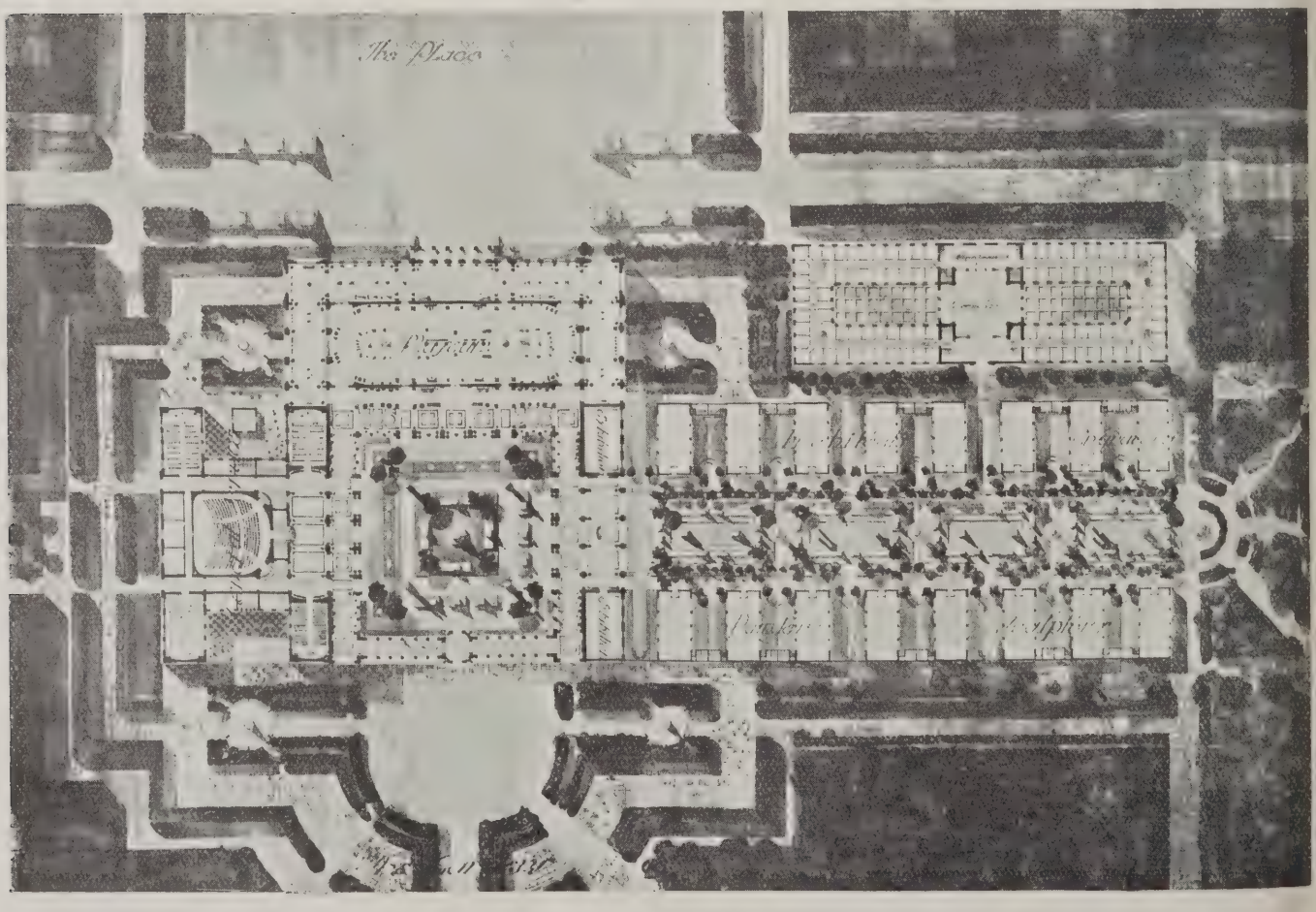


ENTRANCE ELEVATION.



SECTION THROUGH MUSEUM.

ELEVATION TO PLACE.



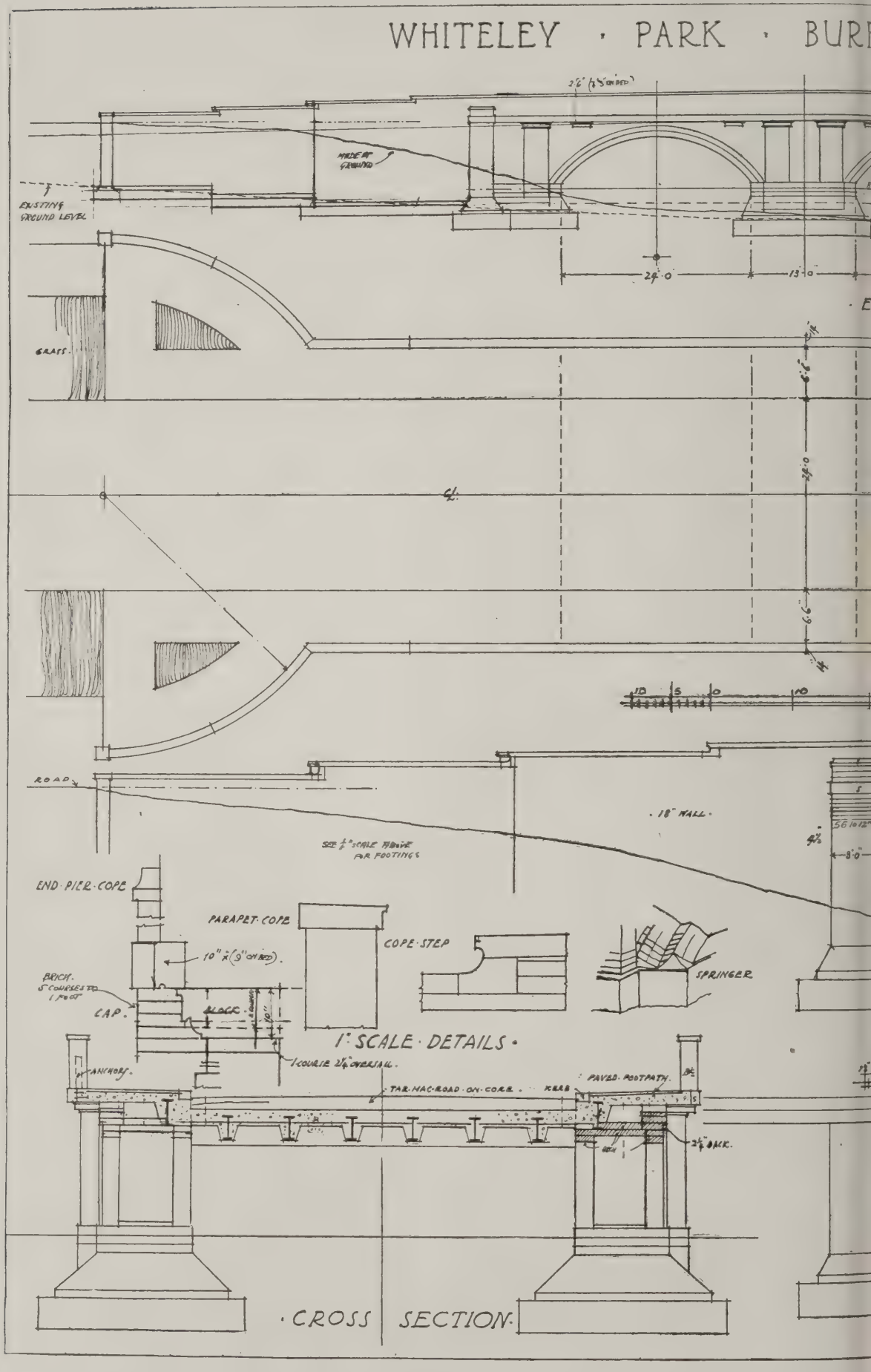
VICTORY SCHOLARSHIP COMPETITION, 1921. A ROYAL FINE ARTS SCHOOL.
DESIGN BY BRIGHT FRASER, M.S.A.

(*See page 255.*)

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Bridges. 5.—Bridge at Wh

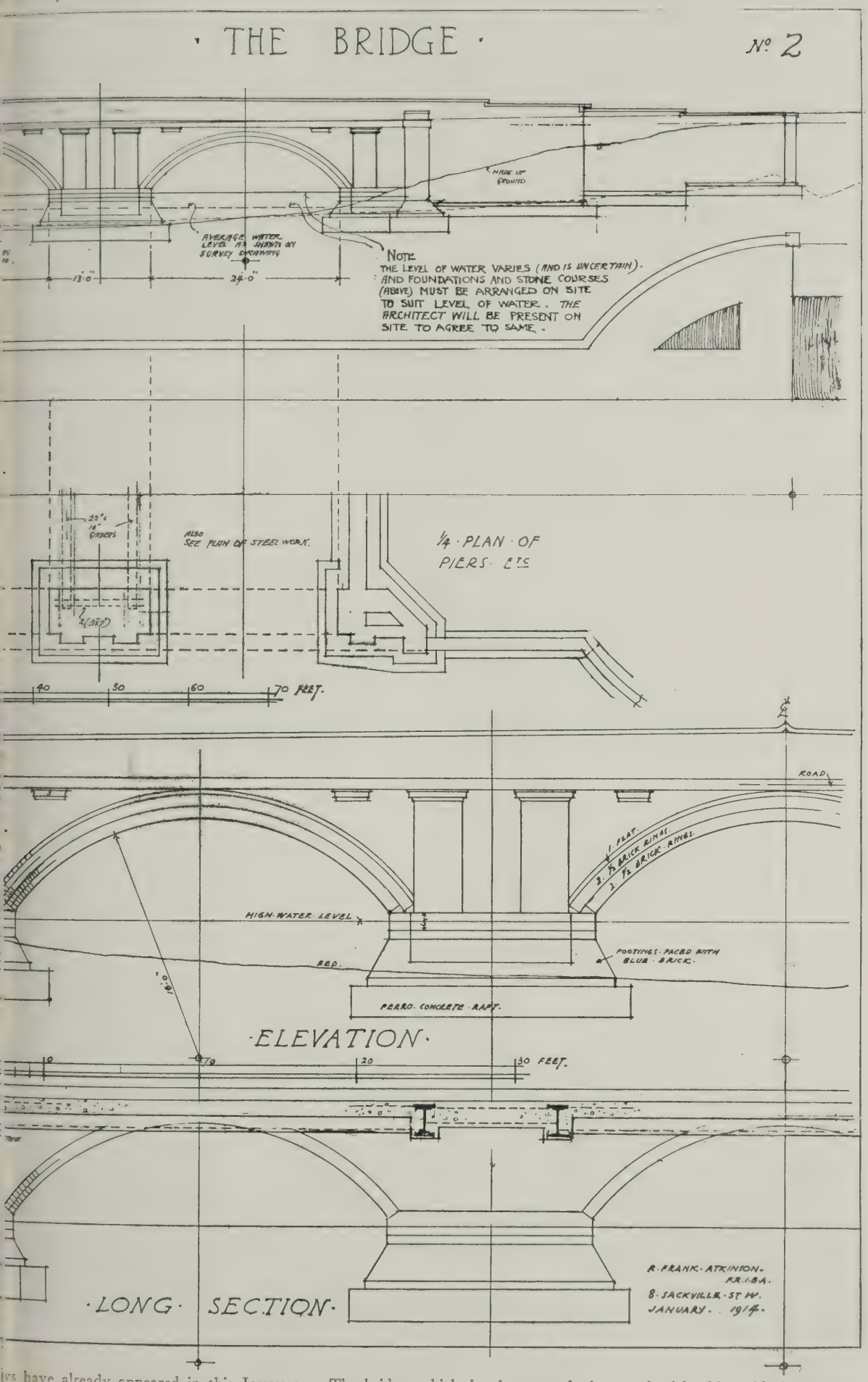
R. Frank Atk



This interesting little bridge has been erected in connection with the Whiteley Village, Walton, Surrey, of which
parapets, is a brick and stone structure, with a steel and concrete roadway, the piers, which are

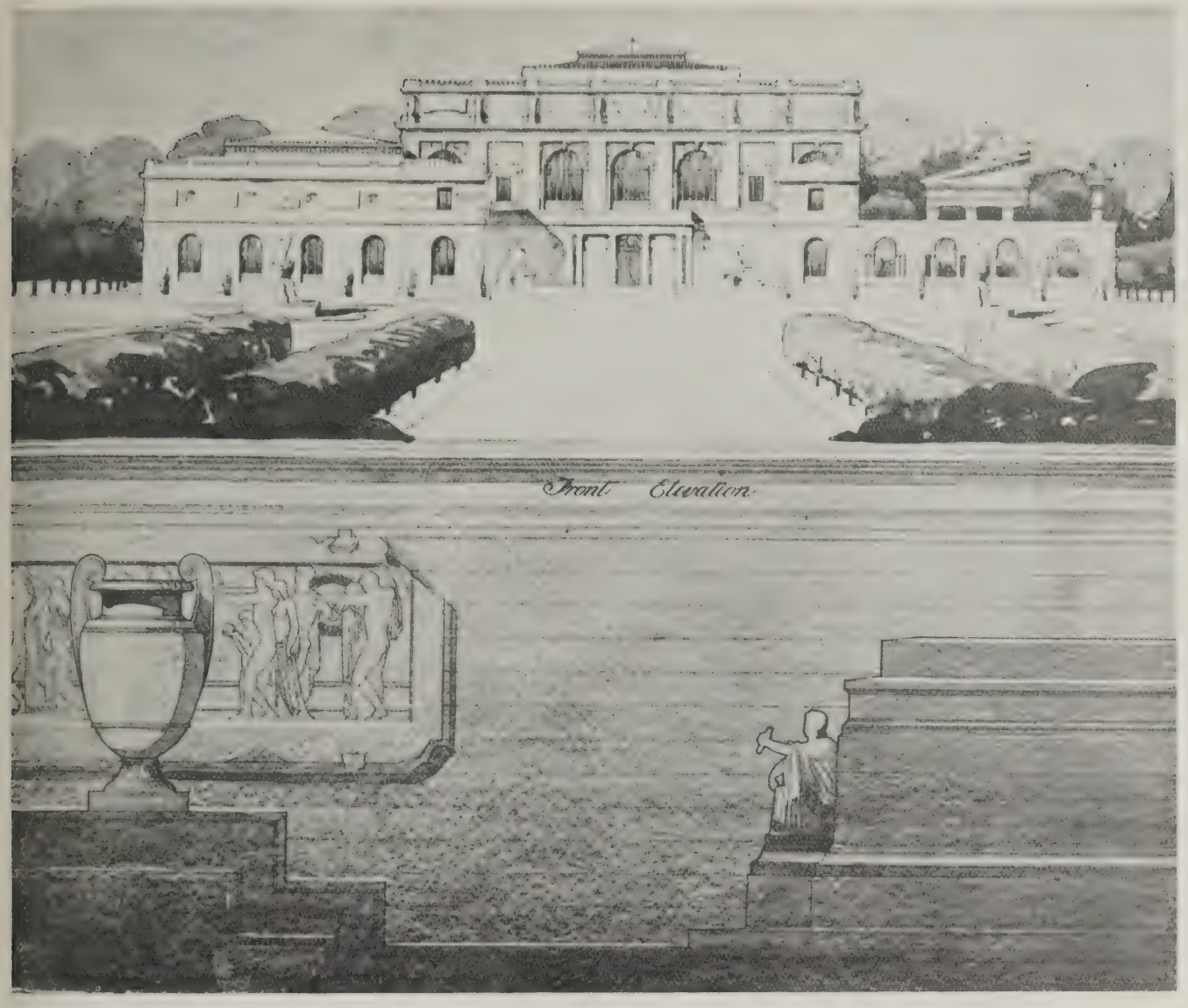
ark, Burhill, Walton, Surrey

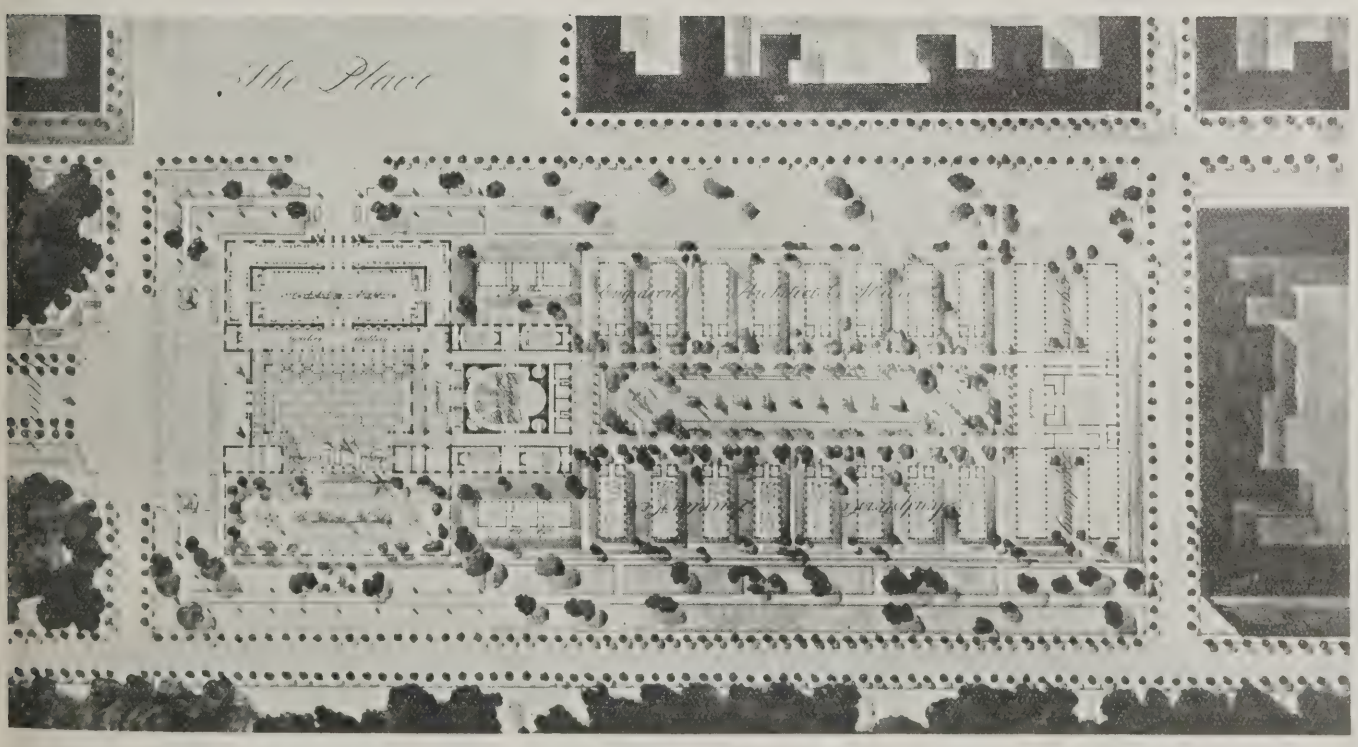
I.B.A., Architect



ws have already appeared in this JOURNAL. The bridge, which is about 210 ft. long and 36 ft. 6 in. wide between s, resting on reinforced concrete rafts. Some photographic views are given on pages 254 and 255.

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VICTORY SCHOLARSHIP COMPETITION, 1921. A ROYAL FINE ARTS SCHOOL.
DESIGN BY J. H. WHITE, A.R.I.B.A.

(*See page 255.*)

Dear Building

Mr. William Woodward, F.R.I.B.A., F.S.I., in a letter to "The Times," confirms the opinion expressed by the Departmental Committee, in their report on the high cost of building working-class dwellings, that "the high cost of labour, including that involved in producing materials and in transport, has been the principal cause of the high cost of building."

In support of this opinion Mr. Woodward says: The increase in the price of building materials is due, to a large extent, to the cost of labour in producing those materials; but the increase in the cost of labour is wholly due to limitation of output—in other words, to "ca' canny." In a letter which appeared in "The Times" of April 9, 1920, I stated that the relation between the cost of materials and that of labour had been about two-thirds for materials and one-third for labour, but that (when I wrote the letter) the cost of labour was now $\frac{7}{10}$-ths and that of materials $\frac{3}{10}$-ths; so that, a few years back, the cost of labour on a £10,000 building was £3,333—and now it was £7,000. The sad part of this is that half of that £7,000 has been thrown away by limitation of output.

All thoughtful persons are looking forward to bad times in the coming winter, but, speaking of the building trade, I may safely say that if the men will consent to work reasonably in the hours for which they are paid to work, there need be no fear of unemployment in that trade. Tens of thousands of pounds sterling are resting in the pockets of building owners, ready to be disbursed if only those most concerned will listen to reason. Now, who will sit down and say, "Come, let us reason together?"

[Extracts from the Departmental Committee's report are published on page 267.]

"The Banksman"

Anyone passing one of the many huge new buildings that are growing up in West London must have noticed at certain times a figure kneeling perilously on the edge of the building, gazing down and moving one hand sometimes like a pianist in a *largo*, sometimes like an orator making a side reference to heaven (but always gazing downwards). The huge stone suspended from the jib of the crane seems to be obeying his gesture like a car in a conjuring trick.

This is a "banksman," really a Babylonian or Assyrian figure, which is with us to-day doing the same kind of work, probably by the same kind of movements, as his craftsman ancestor, and receiving a penny an hour extra above his union pay. His job is to see what the crane has to do and to signal it to the cranesman, who cannot see from his perch over the side of the building. Sometimes even the banksman on the top cannot see when a big piece of basement stone is being gentled into its place, and so there is a second banksman on the ground, signalling to the upper banksman.

It is fascinating to watch at the Bush Building in the Strand just now a six-ton stanchion lowered into space so tenderly that the difference between motion and rest is almost imperceptible. No one shouts and no one telephones—only an early Briton in khaki and moleskin waggles his little finger at the stanchion as it comes down and cocks his thumb when it stops—or, perhaps, it stopped when he cocked his thumb. There is a whole alphabet of signs and a marvellous and seemingly instantaneous control of the motion of the crane.

It would be interesting to know how old the banksman's craft is. He would not be used at the Pyramids, for there the stones were brought up in rockers from step to step, but he must have been busy in Cyclopian days, and the Greeks must have known the banksman. Nevertheless, ancient though his ancestry may be, he is not prouder than he should be.—"Manchester Guardian."

Some Recent Work by Messrs. W. and E. Hunt

In this issue we illustrate some recent work by Messrs. William and Edward Hunt, FF.R.I.B.A. The examples embrace alterations and additions to Les Lauriers Restaurant, Jermyn Street, and to the Blind Institution, Tottenham Court Road. With regard to the former, we show two very attractive interiors—the reception-room, and the restaurant itself, with its suspended gallery.

The reception room is panelled with wood and plaster, and has a fire-place with some specially-made Dutch faience tiles and a steel and brass stove; the mantelpiece and curb is in Breccia marble, and the stairway leading out being of statuary marble.

The suspended balcony is of reinforced concrete construction, having a balustrade with open suspending pilasters of bronze and steel, and a marble curb and floor. The balcony has access from the ladies' room, which has also been added to the restaurant.

The structural alterations involved the removal of one of the main walls from the footings to the first floor ceiling level, and for this work a considerable quantity of intricate steelwork was used. The necessity for carrying out the alterations without seriously affecting the business of the restaurant had to be carefully borne in mind. The steelwork was designed with this end in view, and a detailed programme of the various operations for fixing was prepared. The main steel beams were constructed and placed in temporary positions, so that after the shores and needles were fixed the main stanchions could be erected; the steel beams were then moved from their temporary to their final positions, and the load taken by the steelwork.

For ventilation two independent plants were installed, one for the kitchen, and the other for the restaurant. The former consists of a powerful electrically driven centrifugal fan fixed in the area at the rear of the building, and connected to a system of overhead ducts by means of which the heated and vitiated air is drawn from the kitchen, sculleries, etc., and discharged through a vertical shaft carried up to roof level. Particular attention was given to the prevention of odours from the kitchen being perceptible in the restaurant, lobbies, etc., and the desired results have been attained by the special disposition of the extraction gratings and air velocities obtained at the various points. The restaurant is ventilated such a manner that no air shafts, gratin or fans are visible, although a contin and regular flow of fresh air is obtain and the vitiated air removed at h level. The ventilating arrangeme were designed and installed by the A Vent Heater Co., Ltd.

The general contractors were Mess Sykes and Son, of Essex Street, W.C For the reception room, faience tiles a stoves fire-place were supplied by Mess A. Bell & Co., Ltd., of Berners Street, W and marble by Mr. H. C. Tanner, Hanwell W. 7.

The balcony was constructed Messrs. Sykes and Sons and Mess Barrett and Wright, Ltd., of Bartho mew Close, E.C. 1. The bronze and st balustrade and suspending pilasters w by Messrs. G. Long & Co., of Lower Ri mond Road, S.W. 15, and the marb work by H. C. Tanner, of Campbell Ro Hanwell W. 7.

The doorway to the Blind Institut is constructed of wood, with ornam economically contrived in bronzed co position. The floor of the entrance is white and green marble.

The building was originally provid with a high-pressure heating apparat but this apparatus was removed and placed by a new plant designed on accelerated low-pressure hot-water s tem. The plant comprises a cast-ir sectional boiler, with circulating ma taken to radiators fixed in the vari rooms, workshops, etc., the water be circulated by means of a positive el trically-driven accelerator, enabling mains and branches to be run irrespect of levels and thus eliminating trench sinking of boiler, and other costly b ders' work.

The ventilation of the pitch room ceived special attention, the arrangem being such that the fumes are collec over each of the boiling vats and c ducted direct to the outside of the bui ing without affecting the atmosphere the workshop.

A new independent hot-water sup plant has also been installed, where ample hot water is available at all poi whenever desired. The heating, h water supply, and ventilating arran ments were designed and installed by Air-Vent Heater Co., Ltd.

The safety of the employees in event of an outbreak of fire has b adequately provided for by the fixing a large external fire escape staircase the main area. This extends to the height of the building, and is suppor on main stanchions with landings carr the full width of the area. The stairc was specially designed and construc so as to preclude the possibility of a accident or harm being caused to non-sighted employees.

A hand-operated ashes and fuel ho has been fixed at the side of the stairc and carried the full height of the buildi The fire escape staircase, hoist, str tural steelwork, steel fireproof door, e were designed and constructed by Mess Barrett and Wright, Ltd.

The general contractors were Mess Higgs and Hill, Ltd., of "Crown Work South Lambeth Road. Doorway a window fronts were by Messrs. Sam Haskins Brothers, of Old Street, E.C and marblework by H. C. Tanner, Campbell Road, Hanwell, W. 7.

Current Architecture. 110.—New Doorway to the Blind Institution, Tottenham Court Road, London

William and Edward Hunt, FF.R.I.B.A., Architects



The above doorway forms part of some recent alterations and additions that have been carried out at the Blind Institution, Tottenham Court Road. It is constructed of wood, with ornament economically contrived in bronzed composition. The floor to the entrance is of white and green marble. Some further notes are given on page 262.

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White Lead in Painting: Should it be Prohibited?

following article is a specially prepared summary of a statement issued by the London Chamber of Commerce in answer to the posal of the International Labour Office to prohibit the use of white lead in paint. The subject is, we think, dealt with without lue bias; but, in accordance with our usual practice, we shall be glad to open our columns to a discussion of the matter from other points of view.

)NE of the questions to be discussed at the International Labour Conference which meets at Geneva on ober 25 is "The Prohibition of the use White Lead in Painting."

n preparation for this conference, it the duty of the International Labour ce to collect the most relevant and to-date information, to summarize it, set it out impartially, and to indicate various alternative methods of dealing h the problem. The duty of a fair sentation of the facts and arguments and against prohibition was, obvily, the more cogent because not a few the Governments and of the repretatives at Geneva will have had no vious knowledge of this particular ject, and are, therefore, likely to be led exclusively by any publication porting to be official.

nstead of adopting this course, howr, the International Labour Office ed to the States that will take part in conference a Memorandum and stionnaire which, it is alleged, is unquisedly a plea for prohibition.

he London Chamber of Commerce has issued a statement of the Case inst Prohibition, the broad outline of which is appended. Valuable istical and other appendices have been tted for reasons of space.

HE STATISTICS OF LEAD POISONING DO NOT WARRANT PROHIBITION.

t is known that, owing to the difficulty diagnosis of lead poisoning without ial experience, very many cases are ngly attributed to lead poisoning: s tests made by the objective basoic granulation method confirmed only per cent. of the cases ascribed to lead oning by subjective clinical diags. The tendency to attribute to poisoning all possible symptoms in orker who is known or believed to e had anything to do with lead is inced by the operation of the Work's Compensation Act: "If the indial has been a lead worker, it is easy frequently erroneous to conclude the ptoms owe their origin to the worker's pation." (Legge and Goadby: Lead oning and Lead Absorption, p. 177). n so, the English Departmental Comee which considered the question in stated that "the rates of death and cks due to lead poisoning among se-painters are thus comparatively ll." The general health of painters in land is known to compare favourably that of other occupations. Thus a parison of the painters' group (1,851 ons) with a general group (32,033 ons), both of the Hearts of Oak Benociety, for one year shows the follow- results:—

	Percentage claiming benefit	No. of days' sickness per member at risk
eral Group ..	18	5.8
ters' Group ..	11.1	4.1

There were only one case of sickness ascribed to plumbism and three cases to colic among the painters' group.

As to death rates, those for the painters were, at the time of the last census for which figures are available (1901), lower at every age-period than those of the group "Occupied Males of Industrial Districts."

The death rates are, indeed, lower than in many occupations not usually considered especially dangerous. Mr. J. H. Schooling, the well-known statistician, has compared the painter's risk with that of the other occupations as shown in the Registrar-General's Report for 1908 (Cd 2619), and has stated that the figures show that the mortality among painters "is in no way excessive or abnormal: it has been decreasing as rapidly (as) or more rapidly than the mortality of England and Wales, and there is a very large number of most varied occupations, many of which are believed to be ordinarily healthy, in which the mortality exceeds that of painters." While the matter is one which requires the most careful consideration, there is, therefore, reason to believe that the risk of paint-poisoning among painters in England is not more than an ordinary industrial risk.

II. THE QUESTION OF SUBSTITUTES.

It is maintained in the statement that there is no effective all-round substitute for white lead in painting.

III. THE PROHIBITION OF WHITE LEAD WOULD NOT REMOVE ALL THE CHIEF CAUSES OF PAINTER'S SICKNESS.

If the risks incident to the painter's occupation are to be dealt with effectively, they must be viewed as a whole and all the dangers of the use of paint must be studied as to extent, cause, and remedies. (*a*) There is now a quantity of evidence to show that a great deal of painter's poisoning is wrongly attributed to lead, and is due to the volatile thinners used in paints. The poisonous properties of turpentine, benzol, methyl-alcohol, etc., which are used as volatile thinners with most paints, whether with a base of lead or of zinc or other, are now well-known. To the vapours given off by them immediately upon the application of the paint painters are continually exposed. This is believed to be the reason for the prevalence of kidney diseases, and especially Bright's disease, and for the frequency of gout, among painters; workers in white lead factories, who are more directly exposed to the dangers of lead, do not commonly suffer from kidney diseases or from gout. (*b*) As to poison from the pigment, the tendency of modern research is to show that poisoning arises from the use of compounds of heavy metals, whether lead or zinc or other. Modern opinion regards the source of the danger as being, primarily, the inhalation of dust, and, secondarily, paint carried to the mouth by paint-soiled hands, etc., and so absorbed by the digestive canal. The primary importance of dust has been emphasized by nearly all the recent Governmental enquiries—Austrian, Belgian, Genevan, German.

IV. EFFECT OF PROHIBITION.

(*a*) Under this head it is contended that prohibition would be very costly, difficult to enforce, and of doubtful effect.

(*b*) *Prohibition would have a disastrous effect on Home and Imperial Industries.* (1) The White Lead Industry.—Since 85 per cent. of white lead is used for paint, prohibition would extinguish the white lead industry in Great Britain, and its workers would be thrown out of employment. In the event of an international prohibition there would, of course, be no outlet by export; nor would the presence of 4 or 5 per cent. of lead in the plumbous zinc-white advocated by the Memorandum of the International Labour Office materially affect the position. It would not be possible to adapt white lead factories to the manufacture of zinc oxide and other substitutes. White lead manufacturers are large users of certain necessities, such as earthenware pots, timber, spent tan, and acetic acid. Their going out of business would adversely affect employment in these industries.

(2) Imperial Lead Mines.—The world's annual production of metallic lead is about 1,100,000 tons, of which 210,000 to 220,000 tons, or 20 per cent., are used for conversion into white lead. The great bulk of white lead is used for painting.

Prohibition, by reducing the demand by nearly 20 per cent., would inevitably cause a great fall in the price of lead; and, it is stated, would have the effect of closing down the Broken Hill (New South Wales) and other mines.

As the zinc industry never has prospered in the United Kingdom and British Empire, the majority of the spelter works and zinc oxide works in the United Kingdom being at present closed, while Belgium and Germany continue to work their factories and smelters and are supplying the British market, the ruinous consequence of putting the British paint industry at the mercy of foreign producers of zinc is but too apparent.

(*c*) If white lead were prohibited and there were no regulation of painting, the painter would still be exposed to the danger of poisoning from turpentine or other volatile thinners; from zinc paints (zinc oxide being poisonous, though to a less degree than white lead); from lead in the use of plumbous zinc oxide.

V. REGULATIONS ALONE WOULD EFFECTIVELY DEAL WITH THE CAUSE OF PAINT POISONING AMONG PAINTERS.

A. *Nature of Regulations for Painting.* (*a*) Regulations to avoid dust.—Regulations must primarily be directed to the danger of dust, and in particular to dry

rubbing down and dry scraping. These should be prohibited.

(*b*) Regulations to ensure cleanliness.—Next to dust, the chief source of danger of metallic poisoning arises from paint on unwashed hands and face, which may be conveyed into the mouth, especially in the handling of food or tobacco. This danger can be met by provision of the means of cleanliness and enforcement of their use. These may be summarized as follows :—

(1) Provision of washing appliances—water, towels, soap.

(2) Use of overalls and the washing of them.

(3) Ventilation.

(*c*) General Regulations.—(1) Periodical medical inspection is of special importance, because paint poisoning is slow and cumulative in its effects.

(2) Printed advice explaining the dangers of the industry, with suggestions as to their avoidance, is of importance, because the average painter is frequently found to be indifferent to the dangers incidental to his calling.

B. *The Machinery of Regulations.* It is not necessary to elaborate any specific scheme. The machinery of enforcement is an ordinary administrative matter for each country concerned, and does not present exceptional difficulties.

Governmental Investigations in European Countries. The subject of lead poisoning has been recently investigated by Commissions of Enquiry in a number of European countries—Austria, Belgium, France, Geneva (State), Germany, Great Britain, Switzerland. With the exception of France and Great Britain (for reasons which the *Case Against Prohibition* shows to be inadequate), all adopted the policy of Regulations, and in particular Regulations in respect of lead dust.

Of these investigations that of Geneva was perhaps the most illuminating, and its general conclusions may be usefully quoted :—

1. "White lead as used for painting in Geneva does not constitute a social danger necessitating a measure so extreme as prohibition.

2. "White lead is a necessity for which zinc oxide is not an all-round substitute.

3. "Painting with white lead is not a real danger when simple precautions are taken.

4. "Lead dust may be avoided by the use of white lead in the form of paste, i.e., ground in oil (long been a practice in Great Britain), and by preventing dry rubbing down and dry pumice-stoning and burning off of old paint." (La Ceruse, pp. 17–19.)

Gretna Factory to be Sold

On August 31 the Government factory at Gretna is to be handed over to the Disposal Board for sale by private treaty. The property to be sold covers an area of approximately 4,300 acres on the north shore of the Solway Firth, some nine miles from Carlisle, on the Glasgow and South-Western, Caledonian, and North British Railways. There are two stations on the estate. Gretna possesses sufficient plant, power, and water installations, transport, and communication facilities, and housing accommodation to meet all the requirements of a self-contained industrial community. In the first instance the factory will be offered for sale in one lot.

Housing the South Wales Miner

Some interesting suggestions with regard to the provision of housing accommodation for the miners of South Wales are made in the report,* just issued, of the South Wales Regional Survey Committee. The Minister appointed this Committee in February last year to "inquire into and report upon the special circumstances affecting the distribution and location of the houses to be erected with State-aid in the region of the coalfields of South Wales, and to make recommendations thereon." In view of the urgent need for economy, only an abridgement of the full report has been issued.

Sir William Seager, M.P., was chairman of the Committee, and the other members comprised : Professor Patrick Abercrombie, M.A., A.R.I.B.A., M.T.P.I., professor of town-planning and civic design, University of Liverpool; Alderman William Jenkins, J.P., chairman, Glamorgan County Council; and Messrs. Isaac Edwards, F.A.I., Merthyr; W. T. Griffiths, B.Sc., A.R.S.M., F.S.I., F.G.S., mineral valuer for South Wales, Land Valuation Department, Board of Inland Revenue; D. M. Jenkins, A.M.Inst.C.E., F.G.S., borough engineer of Neath; T. Alwyn Lloyd, F.R.I.B.A., M.T.P.I., architect to the Welsh Town Planning and Housing Trust, Ltd.; G. L. Pepler, F.S.I., P.T.P.I., Ministry of Health; E. H. Swain, A.M.I., Mech.E., area transport commissioner for Wales, Ministry of Transport; Arthur Ll. Thomas, M.B.E., F.S.I., M.I.Mech.E., housing commissioner for Wales and Monmouthshire, Ministry of Health; and Edgar L. Chappell, Ministry of Health (secretary).

Oral evidence was heard from eighty-four witnesses, including representatives of the chief industrial concerns, trade union organizations, and local authorities, and numbers of written statements were obtained from various sources. The Committee were unanimous in their conclusions.

The mining industry, in which probably one-third of the male population of South Wales is employed, is concentrated in valleys, which are in themselves unfitted for housing purposes, owing to the scarcity of suitable housing sites. Several factors tend to high prices for the land, to high cost of building and development, to the crowding of houses together, and to the impossibility of obtaining land for recreation purposes. These are mainly the narrowness of the valleys, the steepness of the hill sides, the extent of land taken up for colliery works, railways, canals, and roads, and the liability to subsidence.

There is, moreover, the unfortunate fact that wherever aggregations of houses are situated in the valleys, they are necessarily in close proximity to collieries and colliery works, with all the serious disadvantages of the coaldust and smoke nuisance, and the serious pollution of the rivers. On the other hand, the hill-top areas are also unsuitable for housing purposes, owing to difficulty of access, bleakness of situation, poverty of soil, liability to subsidence, and absence of water supplies. The Committee are of opinion that depressing surroundings and sameness occupation have a marked effect causing discontent and unrest.

In view of these considerations, Committee recommend the housing miners outside the valleys and off coal measures, and suggest fifteen loc ties as centres for grouped hous schemes, to serve particular valleys groups of valleys. Practically all centres suggested are in the vicinity railway junctions, and are served more than one line of railway, thus fa tating the improvement of workme train services.

In most cases, also, the water supp sewerage, and other services are alre available, or can be provided with much difficulty. It is, therefore, clain that the cost of development on th lines would be very much less than wh building activities are distributed ove large number of sites, and that new to ships could thus be planned and built the best possible lines with adequate p vision for social institutions and ne sary transport and other services.

Each of these settlements should p take of the nature of a dormitory to it should be built away from the ind trial centres, it should be almost pur residential in character, the reside should belong to different industries, the size of the town should be definit limited by a permanent agricultural b within its own boundaries.

The Committee recommend, howe specially the establishment as an obj lesson, of two complete dormitory tow one near Llantrisant station for a popu tion of about 30,000, and the other by replanning or remodelling of Bridge and its expansion into a dormitory to about four times its present size. T can only be done satisfactorily by Government (though with the associat of the residents in the management of scheme from its earliest stages), and Committee urge that at any rate Llantrisant scheme be immediately ta in hand.

The Committee also recommend development of Porthcawl as the pri pal "health" town for the region, make many suggestions as to the impro ment of local amenities.

Apart from the creation by the Gov ment of these two dormitory towns, i suggested that it would be desirable form four joint town-planning committ on which all the local authorities in region would be represented. The du of each of these committees would c sist in the preparation of an outline p for its area, such plan to be incorpora subsequently in the town - plann schemes of each of the local authorit In addition, the Committee recomm the establishment of a regional to planning board, to supervise the worl the various joint town-planning c mittees, and to prepare a regional velopment plan.

The Committee recommend that ac be taken by the Ministry of Health bring about a systematic redistribu of local authority areas in South Wa and that a boundary commission be pointed at the earliest possible date make recommendations both for the adjustment of boundaries and for setting of up a regional council, so what on the lines of the London Cou Council.

* Report of the South Wales Regional Survey Committee, H.M. Stationery Office, price 3s. 6d. net.

The High Cost of House Building

DEPARTMENTAL COMMITTEE'S REPORT

THE Report of the Departmental Committee on the High Cost of Building Working-class Dwellings is now been issued (price 1s. net, of M. Stationery Office). It is a document 68 pages, and makes a thorough examination of all the factors involved. he Committee was appointed by Dr. ddison in February 1921, its constitution being as follows :—

J. Stanley Holmes, M.P., Sir Thomas obinson, M.P., Col. J. Ward, C.B., M.G., M.P., Sir James Carmichael, .B.E., Thomas Barron, A. G. Cross, S.I., F. J. Gayer, F.I.O.B., James bson, F.R.I.B.A., M. Webster Jenkin, F.C.A., William H. Nicholls, F.I.O.B. H. Selby, F.S.I., J. Walker Smith, I.C.E., F.S.I., S. Stranks. The pre-se terms of reference were "to enquire d report as to the reasons for the pre-nt high cost of building working-class vellings and to make recommendations to any practicable measures for re-cing the cost."

The committee held sixteen meetings d examined witnesses representing e Ministry of Health, local authorities, chitectural, surveying, and other pro-ssions concerned, builders, foremen, rks of works, trades union officials, and, deed, representatives of all branches of dustry which affect the question of st of building. In addition to the amination of witnesses, they made ecial investigations of a thorough and mprehensive nature by way of analys-g actual costs of work for the purpose of amining in detail every aspect of the estion referred to them.

General Conclusions

The general conclusions of the com-ttee are as follows :—

1. We recognize that the need for work-n's houses is great. Nothing that is d in this report must be taken as pressing the view of this committee that uses in great numbers are not abso-ely essential in the interest of public alth and humanity. These essential uses will need to be provided at a ficient rate under some satisfactory licy of finance, aiming at their provision soon as possible on an economic basis ordinary means. In the interim, how-r, a great responsibility rests upon the vernment for securing the provision essential houses by such methods as l reduce the financial assistance by the te and local authority to a minimum. e have concluded that the policy opted for the provision of workmen's uses has had a prejudicial effect upon cost of building, especially in the owing respects, viz. :—

(*a*) By the utilization of the local authorities as the agents for providing houses under arrangements which restricted their financial responsibility to the produce of a 1*d.* rate, thus failing to establish any community of interest between the State and the Local Authority in securing economy.

(*b*) By the flooding of the market—already congested by reason of great demands and depleted powers of production—with an unprecedented State-aided house building programme in excess of the building resources then available, and by rendering the congested conditions even worse by the restriction of the period during which such State aid as was necessary would be forthcoming.

Position of Building Trade

The conditions of the building trade since and on account of the war have been extremely difficult compared with those existing prior to the war. The standard of house now being built is superior in accommodation, construction, amenities, and domestic conveniences to the average workman's house built before the war. These facts must be kept in mind in making any comparison of relative costs of building. We think too that it is right to emphasize that the demand for houses at the time of the greatest activity in letting contracts was clamant. The outlook upon housing was then very different from that which prevails to-day. Pledges had been given that houses should be provided in great numbers and at great speed for ex-soldiers and others who were homeless. Much impatience was expressed in Parliament and in the Press that progress was not faster. The question of cost did not deter Parliament, the Press, and many sections of the public from demanding that the greatest possible number of houses be furnished with the utmost speed.

2. We are of opinion that effective steps have been taken to obtain land for housing purposes upon reasonable terms and that no further economy can be secured in this direction.

As regards the lay-out of the sites, we consider due care has been taken to ensure economical development whilst at the same time introducing new methods which have resulted in raising the standard to a marked extent.

The standard of house adopted is in no way extravagant, and we do not think that anything more could have been done to secure economy in connection with plans, specifications, or otherwise of a technical nature.

Labour and Materials

3. Although there are no doubt cases of builders having obtained favourable contracts yielding more than a normal profit, we think that this condition must be exceptional. It is quite probable that the depression in trade and the general restriction of letting more housing contracts will improve the conditions of existing contracts. Both labour and materials will be more readily obtained and output will be better. But if such is the case there is certainly no evidence that prices at the time of contract included any excessive margin for profit. There is on the other hand evidence that the profit being obtained is not unreasonable.

4. The high cost of labour, not merely the labour directly involved in work of actual construction, but that involved in production of materials and in transport, has been the principal cause in the high cost of building houses.

The demand for high wages has arisen mainly from the necessity imposed on the workman to meet the great increase in the cost of living. But it is clear that there have been other contributory factors, *e.g.*, diminution of output—which is now, however, improving—and exploitation of monopoly conditions created by shortage of skilled workmen.

There is no doubt that output has seriously decreased since 1914, and is at present much below the standard of that time.

If we have dealt somewhat at length with the importance of the labour aspect of the problem it is not to be concluded that we have any animus against labour, but that we are firmly convinced that the present conditions are unsatisfactory and that the co-operation of labour is essential to any lasting scheme for securing greater output and consequently lower cost of production. We have indeed been impressed with the moderation and fairness of the labour views expressed. The delinquencies of labour are urged much more forcibly and frequently than those of the suppliers of materials and the employers, but we are disposed to concur in the view that the attitude of labour has been forced upon them by bitter experience in former years and unsatisfactory conditions over which they have had little or no control. The real and simple solution of the difficulty of the cost of houses—assuming a wise financial policy—lies in increased production. This we are desirous to secure by such means as will bring out the best of the organizing skill, energy, and enterprise of the employer and operative alike in such a way that the general tone of the industry may be raised and the operative may have a fuller opportunity of raising himself above his present status by taking his proper share of the increased benefits which will result from the general increase in production to the advantage of all concerned.

5. We find that there has been a steady and rapid increase in the cost of all materials, due partly to a world shortage and the consequent upsetting of the balance of demand and supply and partly to increased cost of production. High-water mark has, however, been reached, and with more normal conditions prevailing and an improved supply a downward trend of prices has set in, and it is thought that in the near future prices of materials will reach a reasonable level.

The increased cost of transport and the uncertainty of delivery has also been an important factor, making for high cost of building.

6. Although we make certain recommendations with reference to forms of contract to be adopted we do not think that any exception can be taken—on the score of economy—to the forms of contract adopted, nor to their provisions,

having regard to the conditions existing at the time they were entered into.

We think that the demand of labour to undertake responsibility for the provision of houses is to be encouraged, and except that the terms of the Guild contract are such as are somewhat unusual we think that in the efforts to secure greater economy this principle of building was rightly encouraged for the purpose of more fully ascertaining its possibilities.

Summary of Recommendations

I.—(*a*) That a definite limit should be fixed immediately to the number of houses to be erected by local authorities upon the present policy of the State being responsible for the whole annual deficit involved less the produce of a 1*d.* rate.

(*b*) That, if and so far as State aid may be necessary to local authorities for the future provision of essential houses, the financial arrangements should be amended so that the State contribution is a percentage only of the total deficit—such percentage varying according to the circumstances of each case—in order that community of interest in economy may be established.

II.—(*a*) That Local Authorities should be required to adopt plans and groupings of houses requiring reasonable street frontage only, and should not be permitted—as in many cases they appear to desire—to develop entirely with semi-detached houses occupying excessive road frontages. Groups of four or six houses should in some cases be encouraged on suitable sites.

(*b*) That suitable sites for shops and other purposes than housing should be reserved, so that the enhanced value of such sites may be secured for the benefit of the scheme.

(*c*) That large schemes of lay-out already approved should be reviewed with a view to making such modifications to effect economy as the more mature consideration and greater experience of Local Authorities in work of this nature may enable them to do, always provided that such modifications shall not reduce the standard of lay-out.

Simpler Types Recommended

III.—(*a*) That, whilst there does not appear to be any extravagance in the higher standard laid down by the Ministry of Health, the use of the more simple types of houses only be permitted in any new work undertaken; and that means be taken to secure the adoption of any new simple types that may be evolved in substitution for the less economical types in existing contracts.

(*b*) That Local Authorities be encouraged to avail themselves to the utmost of the latitude given to adapt the standard specification to their local circumstances; and that the standard specification of the Ministry of Health be revised from time to time in order to secure the utmost use of the most economical materials.

(*c*) That the requirements for quantities should not be rigidly applied, except in the cases of the larger schemes. Where quantities are advisable some amended form whereby materials and labour items are separated would be of great value for purposes of simplicity and for more readily ascertaining where the excess over normal costs is involved.

(*d* That there be encouraged the method of obtaining lump sum prices for the erection of houses complete in accordance with plans—probably adj usted plans of houses already in existence which the builder has previously erected—and simple specifications, and finished in a manner equal to an existing house which may be taken as an example.

(*e*) That local builders be encouraged to suggest modifications and amendments of construction which will secure economy, and the value of such modifications and amendments should be assessed and agreed to before contracts are entered into.

(*f*) That the standardization of windows, doors, sanitary goods, and internal fitments be more rigidly enforced than at present.

IV.—(*a*) That the question of builders' profits may most effectively and practicably be dealt with by the restoration of normal competitive conditions, and that all possible steps should be taken to secure this object (*e.g.*, *see* recommendations under Part VII of the Report).

(*b*) That Local Authorities should refrain from letting contracts for houses in any area where the available building resources are already fully occupied and where consequently costs of building may tend unduly to increase.

(*c*) That subject to the interests of public health and after the urgent national necessity for providing workmen's houses has been met, steps should be taken in periods of depression in the building industry to use the available labour and materials for the further provision of houses which may then appear desirable.

(*d*) That all possible steps be taken to re-create the house builder to provide houses of the improved type which the public may demand by those economical methods which previously enabled him to supply the demand under competitive conditions.

Cheapening Cost

V.—(1) (*a*) That as a fundamental step to the cheapening of cost of production some scheme for the augmentation of certain skilled trades be put into operation.

(*b*) That the scheme for augmentation should be such as the industry may devise and find most effective.

(*c*) That, so far as action by central and local authorities can assist, and in order to maintain the industry in a healthy condition both for the purpose of securing continuity of employment and for reducing costs of building, housing contracts should not be let in excess of the resources of building production at any particular time and that the proposed programme for the building of essential houses for workmen should not be unduly restricted.

(2) That an *ad hoc* committee—suitably constituted so as to represent the interest of the public as well as the respective branches of the Building Industry—be appointed, probably by the Ministry of Labour, to make an exhaustive enquiry into the questions affecting output in the building trade and to report upon the means whereby increased production by way of improved output can be obtained.

Abolish the Sliding Scale

VI.—(*a*) That the clause in the housing contracts providing for a sliding scale for materials be eliminated as tending to maintain prices at a high level and to preclude the exercise of the skill and energy of the builder in purchasing cheaply. This should apply to all fu contracts, and the clause might with vantage upon suitable terms be elimina even from some of the existing contra

(*b*) That the provision of satisfact houses be encouraged by any mean *e.g.*, by the re-creation of the h builder as recommended in Part IV which will restore the pre-war energy initiative of the private builder and le him his accustomed latitude in supply and fixing such materials as he may able to obtain most easily and econo ally.

VII.—(*a*) That normal conditions contract should be restored elimina at once provisions for fluctuations of of materials and as soon as labour c ditions appear reasonably normal fluctuations of rates of wages during currency of the contract.

(*b*) That the number of cost and pr contracts—even with such incentive economy as they may provide—be stricted to a minimum. That no contracts of this nature be appro except in very exceptional circumstan and that the advisability of putting operation the break clause provided such contracts should be considered each case.

(*c*) That encouragement be given to provision of houses for sale to l authorities as provided for under Sect 12 (3) of the Housing, Town Plann etc., Act, 1919.

(*d*) That local authorities desiring do so should be allowed to provide ho by direct labour in small numbers in first instance, to be subsequently creased if and when their operations pr economical. That local incentive economy be provided by the fixing maximum prices which shall rank financial assistance.

The Guilds

(*e*) That conditions of contract w Guilds should be as nearly as poss similar to conditions of other contra That such contracts should provide the Guild completing the work un taken at a fixed sum. That Guilds encouraged to contract for the lab only as well as for the whole work.

(*f*) That the direct building by Government should be restricted t minimum. Any arrangement which p vides for the actual cost of works, with financial incentive to economy, rank for financial assistance upon the pres lines is only justifiable when such op tions are absolutely essential and can possibly be undertaken otherwise.

VIII.—(*a*) That endeavour should made to obtain cost statistics on all imp tant housing schemes and that the results be tabulated for reference p poses.

(*b*) That the existing costing syst be revised with a view to simplificat so as to afford the required pract information with the minimum of cler labour.

(*c*) That steps be taken to ensure t actual use is made of the information obtained and that the cost statistics of Ministry of Health be published so as be available for local authorities, build and other interested parties.

The report was signed by the wh committee, with reservations by T. Robinson and Messrs. T. Barron S. Stranks.

The Week's News

New Territorial Hall at Bideford.

A new Territorial Hall is to be erected at ideford at a cost of about £3,000.

Housing at Doncaster.

Doncaster Corporation are accepting nders for 190 houses at £300 per house ss than the previous houses cost.

Housing at Biggleswade.

The U.D.C. have obtained loans of 10,000 for housing, and £8,600 for roads id sewers under Newton scheme.

Housing at Folkestone.

The T.C. have decided to proceed with ieir full scheme for the erection of 200 ouses.

Failsworth Housing.

Subject to the approval of the Ministry Health the council has accepted a nder for the erection of a number of ouses, not exceeding 100.

Housing in Chorley Rural District.

The number of houses to be erected on e Coppull West housing site has been stricted to 48, and the question of erect- g the remaining 16 postponed.

Housing at Hinckley.

The scheme for 188 houses in the inckley Rural District will cost £178,655 less than £1,000 a house inclusive of e.

West Wycombe Church.

Funds are being obtained to execute pairs to the tower and roof of the his- rical church of St. Lawrence, West ycombe.

Northampton Sewerage Proposals.

Application has been made to the inistry of Health by the Northampton D.C. for sanction to a loan of £7,000 for orks of sewerage at Weston Favel.

Proposed New Municipal Offices for Withernsea.

Plans have been prepared for new ices for the U.D.C. It is proposed to ect the offices at the corner of Valley ardens.

Housing at Annfield Plain.

Annfield Plain U.D.C. have decided apply to the Public Works Loans Com- ssioners for a further advance of 0,000 for the new Ewehurst housing heme.

Pontings Rebuilding.

Arrangements are being made to re- nstruct the frontage and ground floors Messrs. Pontings, of Kensington, in ler to provide more showroom accom- odation.

English Memorial to Joan of Arc.

A committee has been formed, with the proval of the Bishop and the Dean and apter, to place in the Cathedral of Win- ester a canopied statue of Joan of Arc. e statue is designed by Mr. J. N. mper.

Doncaster Improvement Schemes.

Doncaster R.D.C. have received, sub- t to certain conditions, the sanction of e Ministry of Health to borrow £39,000 sewerage works at Barnby Dun and Kirk Sandall, and £4,200 for water supply purposes at Barnby Dun and Kirk Sandall.

Employed on Housing Schemes.

According to a Parliamentary reply by Sir A. Mond, there were on August 1 148,026 men employed on housing schemes of local authorities and public utility societies in England and Wales. Of these 68,467 were unskilled men.

"Super Cinema" for Whitehaven.

Building operations are now well advanced on the new "super cinema" at Whitehaven. Accommodation will be provided for 1,164 in the auditorium and 480 in a large reinforced concrete balcony.

Archæological Discovery at Alexandria.

Workmen engaged in digging foundations of a new building at Alexandria have discovered the remains of an old Roman road, some beautiful mosaics, and the remains of a big palace. The ruins are thought to be of the Ptolemite period.

Archæological Discovery near Naples.

While attending to drainage at Pozzuoli, near Naples, some workmen found a Græco-Roman statue, representing a woman holding in her hands a small basket of fruit. The statue is in good condition, and has been put in the Museum of Ancient Art at Pozzuoli.

Housing at Darlington.

Revised tenders for the erection of 150 houses are being submitted to the Ministry of Health by the T.C. Two housing schemes are already in hand. One for 500 houses is being carried out for the Great Eastern Railway Company, and the other for 300 for the Council.

Barrow Building Trades Employers.

The annual meeting of the Barrow Building Trades Employers' Association has been held under the chairmanship of Mr. G. E. Ward, the president, The financial statement was passed as satisfactory, and the election of officers resulted as follows: President, Mr. W. H. Paul; vice-presidents, Mr. Hull and Mr. E. Last; secretary, Mr. J. Baker; auditors, Messrs. R. F. Miller & Co.

Repairs to a Wren Church.

The work of repairing the dome of St. Stephen's Church, Walbrook, has been begun, and will cost, it is said, about £1,500. The dome was threatened with serious injury through the splitting of the lead on the roof during the recent hot weather. The church was almost completely destroyed in the great fire of London, and was rebuilt by Sir Christopher Wren.

Brazil International Exhibition.

The centenary of the Independence of Brazil will be celebrated at Rio de Janeiro in the autumn of next year. In connection with the celebrations there will be an extensive Brazilian National Exhibition, and also an International Exhibition, and a number of nations have been invited to participate, and many of them, it is understood, have already accepted the invitation. It is probable that official participation by the British Empire will be decided upon at an early date. In the opinion of the British Chamber of Commerce in Brazil the opportunity afforded to British manufacturers, not only of the United Kingdom, but of the whole Empire, is a unique one, and should not be lost sight of. The exhibition will open some time early in September.

Eastbourne College War Memorial.

Following the precedent established by many of the public schools, the Eastbourne College War Memorial Committee have decided that an old boy should be entrusted with the design and carrying out of the extensive war memorial buildings which are contemplated. In accordance with this decision, Mr. Geoffrey C. Wilson, A.R.I.B.A., a partner in the firm of Messrs. Bourchier, Tatchell and Galsworthy, has been appointed architect.

Marine Engineers' Conferences at Olympia.

A series of conferences is to be held by the Institute of Marine Engineers at the Shipping, Engineering, and Machinery Exhibition which opens at Olympia on September 7. The lectures and papers have been arranged with a view to enlightening power users on a number of points in connection with the economical use of oil. Admission to the lectures, which will be given in the Cinema Hall, will be free to all visitors to the exhibition.

Glasgow Architects and Tolbooth Steeple.

On behalf of the Glasgow Institute of Architects, Mr. C. J. MacLean, the secretary, has forwarded to the Town Clerk of Glasgow a letter dealing with the question of the proposed removal of the Tolbooth Steeple, in which resolutions adopted six years ago are adhered to. The Institute states that the steeple being a characteristic example of seventeenth-century Scottish architecture, and one of the very few remaining buildings of early date in Glasgow, and being an important feature of the architecture of Argyle Street, it was eminently desirable in the city's interest that whatever might be done to the adjoining buildings the steeple should be retained in its present position. The Corporation propose to widen the thoroughfare.

American Beaux Arts Scholarships.

The Paris prize of the Society of Beaux Arts, an architects' institution maintained by wealthy men and women to foster American architecture, has been won by Mr. Lloyd Morgan. Mr. Morgan started his career as an office boy to a firm of New York architects. By hard saving he managed to pay for a course of study in the elements of architecture, and made such progress that he was accepted by the firm as a working student. After he had been demobilised from the American Expeditionary Force in France, Mr. Morgan went to Paris and began to prepare himself for the entrance examination for the Ecole des Beaux Arts. Lack of knowledge of French prevented his passing. He returned to New York to study his art and the French language while working as a draughtsman. He will now be able to attend the Ecole for two and a half years, receiving £750 in a lump sum and £75 a month.

Building Materials for Housing

General Housing Memorandum, No. 56, just issued, relates to the supply of building materials. Arrangements are in force between certain associations of manufacturers and the Department of Building Materials Supply, under which materials are supplied to the Government for housing schemes at a discount or rebate below the current market price. These concessions in price have been granted for housing schemes only, and will not remain in operation after the Department has been brought to an end.

The Department has been in negotiation with the manufacturers with a view to secure for a limited period a modified arrangement under which the materials will be ordered from the makers by or with the authority of the Department as heretofore, but the invoices will be rendered direct to the local authority. The objects of this modification are :—

(*a*) To save the Department's overhead charges, and thus allow to the taxpayer the full benefit of the reduced price, and

(*b*) To dispense, during the period of liquidation of the Department, with the complicated accounting machinery under which payment is made to the makers by the Department, who in turn recover from the local authority.

The modified arrangement has been agreed in the case of *cement* by firms in the Cement Makers' Federation and certain firms who are not members of the Federation, and in the case of *Sanitary Ware* by firms in the Enamelled Sanitary Fireclay Makers' Association.

These firms have agreed to continue the special concessions in price to the Government for housing schemes only, and have accepted the alteration in procedure for a limited period, in order to facilitate the work of winding-up the Department.

Supply of Cement.—The following revised arrangement will be in force as regards all consignments delivered on or after Sept. 1, 1921, and before April 1, 1922.

1. All requisitions for cement for housing schemes should be sent to the Department of Building Materials Supply as heretofore.
2. The Department will place the order with the makers (special measures being taken to avoid delay), and will send to the local authority a copy of the delivery instructions, on which the price will be stated.
3. The cement will be invoiced to the local authority by the makers on D.B.M.S. Form P. 1955 at a special rebate of 3¾ per cent. below schedule price.
4. The consignor's advice of despatch and the building contractor's acknowledgment of receipt (D.B.M.S. Forms 1026) will be sent to the local authority instead of to the Department of Building Materials Supply.
5. The arrangement will terminate on March 31, 1922, after which local authorities or their contractors will make their own arrangements.

Supply of Enamelled Sanitary Fireclay.—The following arrangements will be in force as regards all consignments delivered on or after Sept. 1, 1921, and before April 1, 1922.

Requisitions may be placed, as at present, either direct with merchants or manufacturers, on the certificate of the accredited representative or through the Department of Building Materials Supply (a Form of Certificate is shown in the Memorandum).

Supply of Drainpipes.—The arrangements with the firms in the pipe associations will come to an end on Nov. 5, 1921, after which local authorities or their contractors will make their own arrangements. In the meantime no orders should be placed under Department of Building Materials Supply arrangements unless delivery can be assured before that date.

Supply of Light Castings.—A memorandum dealing with the future arrangements for the supply of light castings will be issued shortly.

Labour Shortage on Housing Schemes

Sir Kingsley Wood, M.P., Parliamentary Secretary to the Minister of Health, in a communication to a correspondent, says that there are some 76,000 Government houses yet to be completed, and 60,000 houses upon which no work has been begun, and for all of which building labour is required. Houses are being built at the rate of 7,500 per month, at which rate it will take at least eighteen months to complete the 137,000 houses. "It is a fact that there is a labour shortage and we are short of bricklayers. It may be true that there are some 2,000 bricklayers scattered over the country unemployed, but many are not ordinarily engaged in the building industry, but work in steelworks and similar places. There is a great shortage of plasterers. We could do with 1,300 more plasterers to-day. There are at this moment 23,000 houses roofed in, waiting for plasterers whom we cannot get. This not only makes for unemployment, but keeps people out of their houses. We want at least 3,000 more people at this hour on different housing schemes, and while in a certain number of cases it may be true to say there is a small number comparatively of bricklayers and carpenters out of work, unemployment in the building trade is practically non-existent."

Scotland's War Memorial

The plans for Scotland's War Memorial are rapidly nearing completion. It is proposed to put up an octagonal shrine right on the apex of the rock on which Edinburgh Castle stands. There are to be two galleries associated with the shrine, and these will contain personal memorials of each Scottish regiment, while every regiment is to be allotted a special bay in which to erect its own monument, along with its colours and a list of the men who fell in battle.

Latest List of New Inventions

Latest Patent Applications.

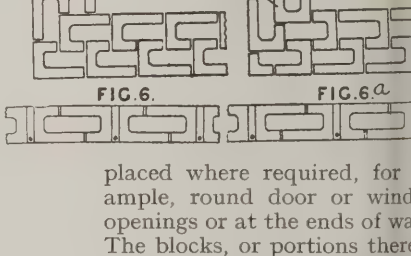
21284.—Gates, M. E.—Coating buil
ings. August 10.
21546.—Hall, H. W.—Suspension a
manipulation of doors of bui
ings. August 13.
21566.—McLellan, J.—Concrete or
ment roofs, floors, or wal
August 13.
20961.—Thomas, W.—Friezes for wal
August 8.
21555.—Woolcock, J.—Floors, e
August 13.

Specifications Published.

167203.—Trobridge, E. G.—Wood
posts, pillars, rails, wind
frames, and like elements us
in buildings.
142824.—Kilp, O.—Building-blocks.
167295.—Pollak, L.—Walls, floors, a
roofs of beton slabs.
167356.—Fidler, D. C.—Walls.
145075.—Taillardat, M.—Wood-block
parquet flooring.

Abstracts Published.

165266.—Building-blocks.—Albertz,
Kanaaldyk L30, Helmond, H
land.—Clay, concrete, e
building-blocks are made
modified L-section, the shor
parallel limb *a* being half
length of the longer and are l
to form walls by arranging th
as shown in Figs. 1 and 2 wh
are plan views of adjac
courses. Channel-section, an
and flat blocks formed of p
tions of the L-section blocks



placed where required, for
ample, round door or wind
openings or at the ends of wa
The blocks, or portions there
are combined together to fo
sills, lintels, door and wind
jambs and foundation cou
for walls, and may be pac
with concrete which may
reinforced. Figs. 6 and 6*a* sh
adjacent courses of the blo
arranged in pairs to form a
inforced blockwork floor
ceiling.

The above particulars are specially prepared by M
Rayner & Co., Regd. Patent Agents, of 5 Chancery
London, from whom readers of this journal may ob
all information free relating to patents, trade marks,
designs. Messrs. Rayner & Co. will obtain pri
copies of the published specifications and forwar
post free for the sum of 1/- each.

A Correction

We are asked to state that, owing t
printer's error, a mistake occurred in
advertisement of Messrs. Williams
Williams which appeared in this JOUR
for August 17. The words "Un
System" should read "Unit System."

Wednesday, September 7, 1921. Vol. LIV. No. 1392

THE ARCHITECTS' JOURNAL & Architectural Engineer

With which is incorporated "The Builders' Journal"



A SUGGESTION FOR A WAR MEMORIAL ARCH
BY STANLEY C. RAMSEY, F.R.I.B.A.

27-29 Tothill Street, Westminster, S.W.1.

Architecture of the Eighteenth Century. 14.—The Plough Inn, Newport Pagnell, Buckinghamshire



THE
ARCHITECTS' JOURNAL
27-29 Tothill Street, Westminster, S.W.1.

Wednesday, September 7, 1921 Volume LIV. No. 1392

Notes and Comments

Root Causes of Housing Failure

IT may soon come to be more easy to forgive than to forget the national housing muddle. There is no sense in vituperating the Government for its failure to wrestle successfully against root principles and atural forces. Not that the Government is to be held ntirely guiltless of hypocrisy, for nothing is more probable an that professional politicians saw in housing needs, nd the specious promises that might be based on them, ne means of grasping power; and it is perfectly patent nat the Tadpoles and Tapers perceived later, in the rident call for economy, a providential method of dodging ut of a particularly tight corner. This wily opportunism, is too-clever political prestidigitation, is mere heartless sincerity. To trifle thus cynically with so vital an issue to incur a grave moral responsibility.

From the charge of insincerity and political chicanery, it but bare justice to exonerate particularly and expressly r. Addison, who is more sinned against than sinning. No ne questions the entire good faith with which he threw mself body and soul into the effort to provide wholesome ouses for workers. As a distinguished member of the edical faculty he could always be credited with a pro-ssional regard, and, one is quite convinced, with a oroughly humane regard also, for the public health, and r the general physical welfare of the community. His art-whole devotion to this cause is plainly evident in the ticle by him which stands first in the current issue of e "Nineteenth Century." In that article a hygienist's nquenchable zeal for the amelioration of the physical es of suffering humanity is much more evident than the ry natural aggrieved bleatings of a scapegoat driven rth into the wilderness to suffer for other people's sins.

that article Dr. Addison's main object is to demand me consistent housing policy, to be steadily maintained rough the years. No doubt it would cost something; but r. Addison is invincible in his declaration that the expen-ture on prevention would "save us from pouring out llions a year" on tuberculosis and other horrible results bad housing. Dr. Addison's article is in effect, if not in tention, a most damaging indictment against the imper-tions of a social system which allows political exigencies outweigh public welfare. It is also a warrant and an centive for architects to press their claim and pursue ir career as ministrants to the public well-being.

Dr. Addison is one among many publicists who would ve the housing question probed to the roots. There is, example, Mr. E. G. Holton, F.R.I.B.A., who, in a very gacious letter to the Editor of the R.I.B.A. Journal, ces the origin of the house famine to a sometime drastic ange in the incidence of local taxation. He takes us k to 1836, when the burden of the rates was put upon ilding and improvements, and he declares that "the rges for education, poor-law administration, and count-s other items, which should logically be paid by the chequer, had practically stopped investment building ore the 'eighties." Then came the mischievous land use of the Finance Act of 1910–11, which made specula-e house-building unprofitable. Bad laws have done much to produce the present housing situation; and few publicists will have the hardihood to dispute Mr. Holton's contention that, "apart from its effect on housing, the present method of local taxation is indefensible." Observations of similar import have been repeatedly made in these columns, because it is so obvious that the land must be freed from many oppressive burdens before it can be turned to profitable uses for the community either by the builder or the agriculturist. Landed interests, now that so many great estates are being sold holus-bolus or piecemeal to anybody who will buy them, are rapidly losing their sacrosanct character, and it is no longer regarded as impious to mention the need of land-law reform, especially since it is impossible to dispute the soundness of Mr. Holton's contention that "an immediate and drastic reform of our whole system of local taxation is vital to housing and the interests of the community." This is so true, that the whole subject of local taxation should be forced to the front at the reputedly impending general election. An impartial inquiry into local taxation in its incidence in various districts throughout the kingdom would reveal sensational anomalies and scandalous abuses of which a clean sweep should be made in the first session of the new Parliament. That an attempt at reform is imminent may be safely inferred from the remarkable rebellion of borough councillors at Poplar. That is a portent not to be ignored even by the most triple-brass-bound opponents of reform. Nor will it serve their turn to attempt to patch up a peace at Poplar and persevere with the muddle elsewhere. Last Thursday the Imperial authorities made heroes and martyrs of eight members of Poplar Borough Council who refused to levy further rates on an already overburdened community; and this strong enforcement of the law as to local taxation is really an immense stride towards a reform that, being intimately bound up with housing, and with building in general, must profoundly affect the building industry, presumably by setting it free from most galling and crippling shackles. Now comes an unexampled opportunity for the entire building industry to make a determined fight for freedom from the anomalies of arbitrary local taxation.

The Shrinkage of Estates

During the holiday season the estate market naturally became comparatively inactive; but during the next month many large and important properties will be offered. Among them are the Hardington estate of 1,220 acres in Lanarkshire; 670 acres of outlying portions of the Penshurst Place estate, in Kent; Sir Harry Lauder's Glenbranter estate of nearly 10,000 acres in Argyllshire; Lord Ashcombe's Churt estate of 2,035 acres in the Hindhead district; the Closeburn estate of 8,741 acres in Dumfriesshire; part (1,484 acres) of the Launde Abbey estate in Leicestershire; and the estate of Craigo, 2,513 acres in Forfarshire. Although the figures given come to a total of nearly 27,000 acres, they fall far short of the acreage up for sale during the next month or so, the total of which has been computed at nearly fifty thousand acres. It is evident that the country generally is being cut up into

smaller holdings, and this seems naturally to imply a period of unprecedented building activity, for each parcel of the divided estate will require at least a residence for the purchaser, so that there will be half a dozen or more "country residences" where formerly one sufficed. Architects will have noted with close personal interest the immense social changes that all this sub-division of great estates must certainly involve, and will trim their sails according to the wind and the weather likely to be encountered. Your Chatsworths and Blenheims, and Hatfields and Knoles, have been long the mere survivals of extinct types; and now the lesser manors and mansions are like enough to become archaic witnesses to a more spacious age than that for which the architect of to-day will design houses. The "stately mansion" (with all this buying and selling of estates it is impossible to escape the jargon of the auctioneer) will be everywhere superseded by the "compact residence" or the "bijou villa"; and the architect who can devise a type or style of house that shall exactly hit the taste and aptly meet the requirements of the new type of estate-owner will achieve the fame and wealth of a Willett or of a Norman Shaw.

Equestrian Statues

Captain G. S. C. Swinton, L.C.C., ever alert for London's æsthetic amelioration, is concerned about the appearance of the equestrian statues that are being, or those that are likely to be erected in London as an "aftermath of the war." (It is not clear whether the irony of the phrase is intentional.) Captain Swinton's complaint is that, "viewed from the distance at which the face becomes recognizable, Lord Wolseley is foreshortened until he is too much hat and boots"; and the Captain adds that the recently modelled statues of King Edward VII and Sir Stanley Maude present the same appearance—"We lose the length from hip to knee, and detect an unpleasing version of the Tod Sloan seat." The reply of the sculptors that the proportions are anatomically correct is not disputed. "They doubtless are and look so on the level, but they do not look so when the subject is hoisted up . . and surely some licence in added length of limb is permissible to meet the point of view of the man on the pavement." It is to be supposed that the Greeks, who never hesitated to correct foreseen optical illusions, applied their subtle art to statuary as well as to buildings, and in their practice anticipated Captain Swinton's criticism. But how comes it that our sculptors have ignored the device? Captain Swinton has galvanized a controversy that had been thought beyond resuscitation—namely, whether an artist should be faithful to fact or to art—or whether, indeed (for ethical as well as æsthetic subtleties are involved), to be faithful to art is to show the higher fidelity to fact. We unhesitatingly vote for art. A sculptor who is the slave, and not the master, of his tape-measure and callipers has but dubious claims to possess "the artist's eye for effect." Literal precision and artistic feeling have but little to do with each other; and Captain Swinton is to be congratulated on scoring an important point.

A Strike Against Piecework

The piecework question, which has become a critical issue at Scunthorpe, in Lincolnshire, is by no means so simple an issue as superficial critics are apt to suppose. In commenting on the strike of some 300 men who were employed by Messrs. Tarrants, Ltd., on the Scunthorpe housing contract, such critics seem to be perplexed at the action of the trade unions in forbidding a form of piece-system of payment. Surely, it is argued in effect, a worker should be paid in accordance with the quantity of work he produces. That is reasonable only as far as it goes, and it does not go deep enough. The operatives are well aware that the piecework system is peculiarly liable to abuse; and it is for this reason, and not to encourage laziness, that the trade unions object so strongly to the system. If the reasons for this objection had been more clearly understood, the dispute at Scunthorpe need not have occurre nor would there be any danger of its extension througho the trade. An expert enquiry into the piecework syste should remove many misapprehensions among employe and many prejudices among the men

Builder as Musician

Many architects have met Mr. James Matthews in business capacity in a responsible position with Mess Trollope and Colls, and all who knew him will be sorry hear of his death. His many accomplishments includ enviable skill in music. For 44 years he was choirmas at St. Mary's, Stoke Newington, and had directed at Hig bury a series of subscription concerts. He was a choris at the coronation services of King Edward and King Geor and at other State functions. At play as well as at wo he must have led a strenuous life; but it is notorious th hard work, when it is congenial, conduces to longevity, a Mr. Matthews exemplified this belief by reaching his eigh eighth year. Music, it is to be supposed, is the favour recreation of builders—as, indeed, it is of most perso but architects and builders are apt to cultivate this delig ful hobby—this sublime solvent of life's little ironies a worries—with more than average intensiveness and succe

Flat Roof as Tennis-court

Many are the uses of the flat roof. It is a garden promenade or lounge, a landing-place for aircraft, a ten court, a site for all the uses to which a plane surface be put. A "squash-racquets court" has been construc on the roof of the Great Eastern Hotel at Liverpool Stre London. It is of regulation size, and an electric-li installation will admit of a stiff tournament or stubb match protracted far into the night. This is probably the first flat-roof tennis-court. Certainly it is not first flat roof adapted to ball-play. For many years boys of the choir school of St. Paul's have kicked a foot against the nets that cover in the spacious roof of th ugly school near the Deanery that Wren built off Ludg Hill.

The Architect's Public

"How to Educate the Public." That is indeed a quest that deserves all the attention which so many of our cor pondents accord it. Apart from the venerable assumpt that if the public knew more about architecture its pr titioners would be stimulated to higher efforts, it wo be easy to collect instances of bad design that are direc traceable to the public ignorance in such matters. Th are, indeed, occasional indications that point to a lack common sense. What is to be said of the complacency a building owner who allows a third-rate contractor to up a balcony opposite a blank wall?—a balcony tha entirely useless because it cannot be reached save fro ladder. When charged with the futility of an inaccessi balcony, the builder was indignant at such "hyperc cism," and defended the balcony as a decorative feat lending interest to an otherwise blank stretch of wa And this, it would appear, is the manner in which i generally regarded by the thoughtless passer-by. It melancholy fact that the public are not sufficiently in ested in buildings to detect in them the most glaring fa —offences, let it be again emphasized, not against æsthet but against rudimentary common sense. Plainly the f step towards educating the public is to get them to obse and to think. Such a colossal task does not prop devolve on the architect. It is the province of the pe gogue—one had almost said, of the abecedarian. Thi an aspect of the matter that should not be overlooked such a general discussion of the problem as that whic now taking place in our correspondence columns. Pers ally, we have long held the opinion (which is surely indisp able) that the subject of architecture could be mad powerful vehicle of education in our secondary scho and in the higher standards of the elementary scho

The Architecture of Newport Pagnell

IT should not be imagined that a holiday spent exploring the country towns of the home counties is inferior to a tour of the cathedral cities. There are few better ways of studying building, and none more thorough, in te of those who affect to despise pedestrianism, than m a walking tour, or what is easier than that, in se days of expensive locomotion, than upon a ycle. Architecture, on a tour by road, next to scenery, is the most important factor. The e artist who enjoys the freedom of the craft does start upon his quest expecting to encounter perfect ns and villages; neither does he desire, like Dr. Syntax, study the picturesque. If he is wise he begins the day h the exhilaration of the wonders to come and the adven- es before him. An architectural tour should not be en alone; rather let the traveller seek a kindred spirit, , moreover, who is a good talker, a quick sketcher, and air antiquary; who will be content to lounge or travel t, to suggest wanderings from off the planned course, or iations at will. This is the season of holidays; then let hitects have recourse to the highways. Let them revel the jollity of inns, the undulations of the countryside, domesticity of unspoiled hamlets, the repose of farms, l the umbrageous greenery of feathered hills.

Most of the country towns to the south of London are l known, but this is not the case with those to the north. us take, for example, the large town of Newport Pagnell, of the biggest in Buckinghamshire. Here is a town of dly dimensions, with fair streets standing on a slight hill ve the River Levet. This town has taken on a Georgian t since the days when Oliver Cromwell rode from the und House at Brogborough to fight his King at Naseby. m London the road enters the town across an iron bridge iniscent of one bay of John Rennie's design for South- k Bridge. When Sir John Soane crossed this bridge in travelling carriage on the way to inspect the progress of the works at Tyringham Hall, Newport Pagnell was the centre of the industry for the manufacture of bone lace, and was noted for its paper mills. Nottingham at that date had not become a rival in the lace industry, neither had the London and Birmingham Railway enticed the inhabitants to Northampton, Coventry, and Brum.

In the country town fifty miles from London one encounters the coaching inn frequently unchanged. At Newport is the "Swan," an hostelry dating back to the reign of the first George, with additions made from time to time to increase its accommodation. Soane must have glanced at the porch and wondered at its "quasi"-Tuscan proportions, the segmental fanlight within the portico escaping his censure. We can imagine old Sir John saying, "The cornice is wrong: it projects too much; and as for the intercolumniation, even Holland would not have sanctioned such wide spacing."

We have learnt much since the days of Soanean philosophy. This is the age of character reading. We are beginning to understand and appreciate the odd humours of the carpenter-designer of our great-grandfathers' youth, who endeavoured to make things handsome and rational, and beyond question succeeded. There is something extremely swan-like in the shaping of this inn porch; the rake of the cornice on either side almost imitates the raised tips of a cygnet's wings.

At the Plough Inn, farther down the street, we chance upon the orange-tinted coat cut in the country style of the year 1775, with lacings of sashed windows. This simply-garbed front shields a mediæval body. The three-light Wyatt windows suggest Tudor mullions, and the courtyard seen through the side gate recalls third-class travelling by stage wagon. "The Plough" knows its station in the main street, and in turn is known to the countryside.

In these days of disciplined building, such street-fronts as those in St. John Street, Newport Pagnell, should be



IRON BRIDGE AT NEWPORT PAGNELL, BUCKINGHAMSHIRE

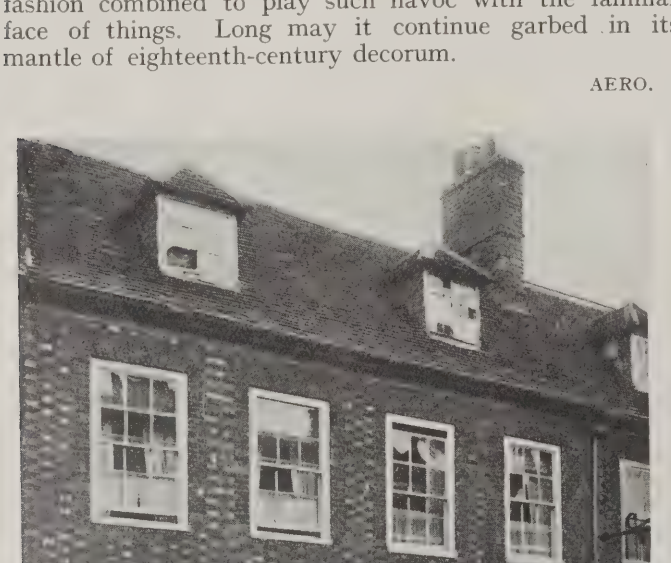
studied. We note that industrial taste favoured a worked pattern in the brick façade. In consequence it appears as if the very bricksetter understood the intricacies of bone lace. These mansions in miniature have all the characteristics of the larger manor-house. The continuous eaves cornice is finished with a "pear drop" repeat, and formerly the dormers boasted leaded windows. Here in these elevations is to be seen the country vernacular of the period of 1775. Truly bone-lace making was productive of good taste in building.

Other houses in Newport of the Pagnells—for such was the family name of the barons who lorded it over the town in the old days—carry the air of aristocratic insolence peculiar to the days when feudalism became somnolent. There is, for example, the mansion in the High Street the front of which is enriched with an insertion of three-light windows, again offering a pleasant hint of the local industry. Doubtless, if the records were searched we should find the original owner to have been a master manufacturer of bone lace.

Direct evidence of Sir John Soane's influence on local taste is forthcoming from the façade to the chemist's in the High Street. Here a seventeenth-century building was left all stucco merely because an eminent London architect had designed a magnificent stone house in the locality. We may regret the old timber ribs within, but in these days we are licensed to admire neatness, and none will deny the good taste of this white-clothed tradesman with the black foundation who takes up sixty feet of the High Street. The towns of England hold many such novelties, therefore it behoves all architects to study and inwardly digest before improvement sweeps them away.

Newport Pagnell, like a few—alas! very few—other towns in the home counties, is largely unspoiled; and we can see it to-day much as our forefathers saw it a century and more ago. It is typical of the English country town before the railways and the changes of architectural fashion combined to play such havoc with the familiar face of things. Long may it continue garbed in its mantle of eighteenth-century decorum.

AERO.



SMALL HOUSES IN ST. JOHN STREET, NEWPORT PAGNELL.



ENTRANCE TO SWAN HOTEL, NEWPORT PAGNELL.

Mr. Frank Brangwyn's Etchings

Not all the interesting art exhibitions closed simu taneously with the Royal Academy. The small but fin selection of architectural etchings by Frank Brangwy which the artist has courteously lent to the proprietors this Journal and of "The Architectural Review" is still o view in the reading-room at 27–29 Tothill Street. A Mr. Crossley Davies, writing in a recent issue of th Journal, remarks: "Here in these etchings may be seen th epic of mankind. There are many wonderful stories her graven in metal. There is, for one, the romance of th abbey of St. Leonards, which lies near to Tours. Built i the great times of Gothic purity, it fell at last on evil day as so many churches did in France; and the spendid fa of which once had been the scene of many glowing pagean the Church became a farmer's dwelling-place and granar Here is history in little, if you like. And now, rescue at last from its unkind fate, the Government of Fran has claimed it as a National Monument." Then, amon others, there are rich and glowing etchings of the church Our Lady of Eu; St. Peter of the Exchange, Geno St. Nicholas, Dixmude; the great arch of the Bridge of Al which spans the River Tarn in France; and a strikin version of Cannon Street Station, London. Mr. Brangwy "does not drop reality for the sake of romance, b romance is to be found behind and inspiring the uncon promising reality of these memorable etchings . . . The show us both the body and the spirit of architecture Admission is free, and architects are cordially invited inspect this remarkable series of drawings by an arti who has no superior among the modern masters.

Central Queensland War Memorial

A committee at Rockhampton is raising £10,000 f a memorial to be erected on the banks of the Fitzro River to commemorate the men of Central Queenslan who served or fell in the war. The committee initiate a competition, and offered premiums of 100 guineas an 50 guineas to the architects and sculptors of Australi Forty-six designs were received, and the assessor, Mr. Joh Sulman, architect, made his award in favour of M G. R. Bryce, of Sydney. A great many of the designs co sisted of arches; single or double columns and obelisks were al in evidence, besides buildings of the mortuary chapel typ

rchitecture of the Eighteenth Century. 15.—Some Fronts in High Street, Newport Pagnell, Buckinghamshire





In these days of disciplined building, the street-fronts of the typical country town of Newport Pagnell offer a variety of suggestions to the architect. The above examples are described by Aero in his article which begins on page 275.

Preserving an Old-World Village

THE Birmingham Civic Society have issued an extremely interesting brochure showing how it is possible to incorporate the village of Northfield in an organized scheme of development without damage to the historical and natural features of the old village. In fact, in the scheme of the Society, which has the tentative approval of the Birmingham Town Planning Sub-Committee, these features are dealt with in such a manner as to throw them into greater relief.

In January, 1919, a deputation from the Civic Society waited upon the Town Planning Committee of the City Council to offer collaboration in their new town-planning schemes; and in a subsequent report the Society laid stress upon the danger of leaving all details other than houses to emerge haphazard from mere sectional development, and urged upon the Town Planning Committee the value to suburban life of well-planned neighbourhood and market centres.

The committee observe in the brochure that many charming old houses, farms, villages, and scenes of natural beauty have already been lost to the city, simply because no organized effort has been made to save them. With the rapid extension of our suburbs consequent on the operation of the Town Planning Acts, the danger of encroachment upon rural beauty and time-honoured historical associations makes imperative some immediate action for their preservation.

The Civic Society has been encouraged to take the old village of Northfield as its first subject by a generous gift of £50 from Councillor George Cadbury, jun., towards the cost involved. As a preliminary, a public competition for a plan to preserve the village within the proposed road plan of the S.W. town planning scheme was conducted with the approval and support of the City Department concerned. This competition, in the opinion of the assessors, did not produce a scheme sufficiently



(From the Brochure published by the Birmingham Civic Society)

practical to justify its adoption, and after consultation with the city engineer, the Technical Committee of the Society itself produced a scheme which, after some slight modifications, took shape in the plan illustrated.

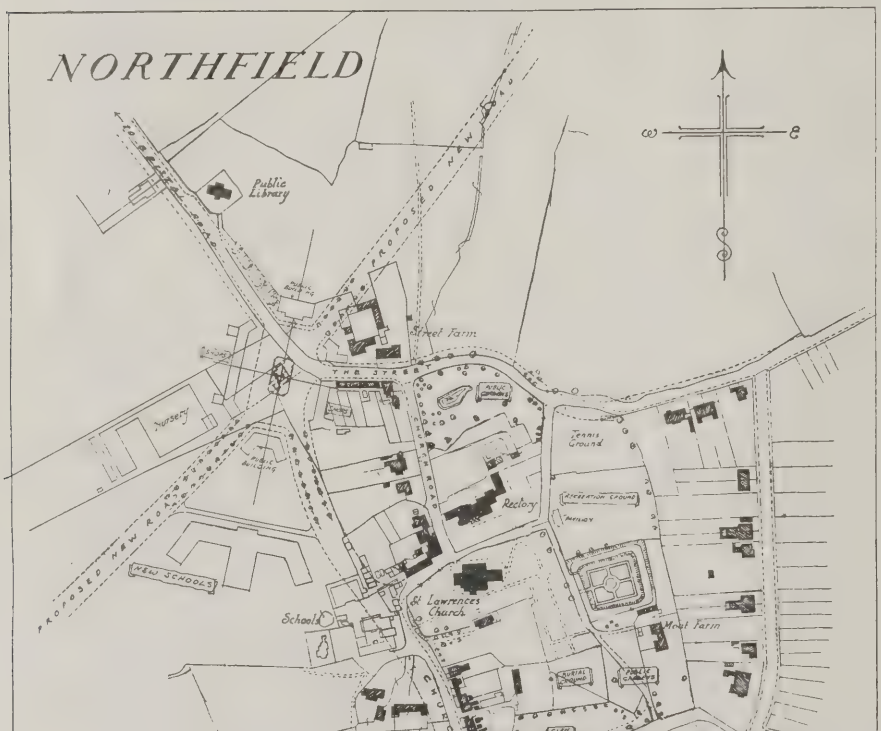
The modifications are chiefly due to the abandonment of a 120 ft. bye-pass road contemplated in the draft town planning scheme; but although this road is no longer to be considered as an arterial traffic route, its direction is so good topographically, that it has been retained as a future residential road, with a suitable reduction in its width.

To those who are not familiar with Northfield, it may be explained that there is considerable intermittent traffic from the direction of Alvechurch. This traffic at present reaches Birmingham by way of a road which bends round the church wall, turns sharp to the left between the Great Stone Inn and the Rectory, then to the left again, and so enters the Bristol Road.

This combination of extensive traffic, sharp bends, and tortuous roads tends to



THE GREAT STONE INN, NORTHFIELD, NEAR BIRMINGHAM.



PLAN PREPARED BY BIRMINGHAM CIVIC SOCIETY TO SHOW PROPCSED NEW ROADS AND ROAD WIDENINGS, FUTURE BUILDINGS, ETC.

create a really dangerous situation. can best be relieved by widening the r from the station to the church corner, by constructing thence a new road wh heads direct for the Bristol Road. only buildings affected by this new ro are the schools and a few cottages, none of them are of great importa The schools, indeed, are already out date, and must in any case be rebuilt the time that the new road-pro matures; obviously, they will be be placed in the position indicated on plan, with access from two wide ro than they are at present, on the danger bend of a narrow lane.

The five-way road-crossing which sults from these suggested developm is in every way suitable for a neighb hood and shopping centre, seeing the junction of several roads is alw convertible into a small "place" a cheap rate. Moreover, the exigencie traffic require some additional roomi at these points, the site is practically le and it is easily accessible from all directi

It may be necessary to modify present proposals in order to allow f further widening of that route from station to Bristol Road, which will form a part of the new ring road. should this be done the neighbourh centre could be suitably enlarged.

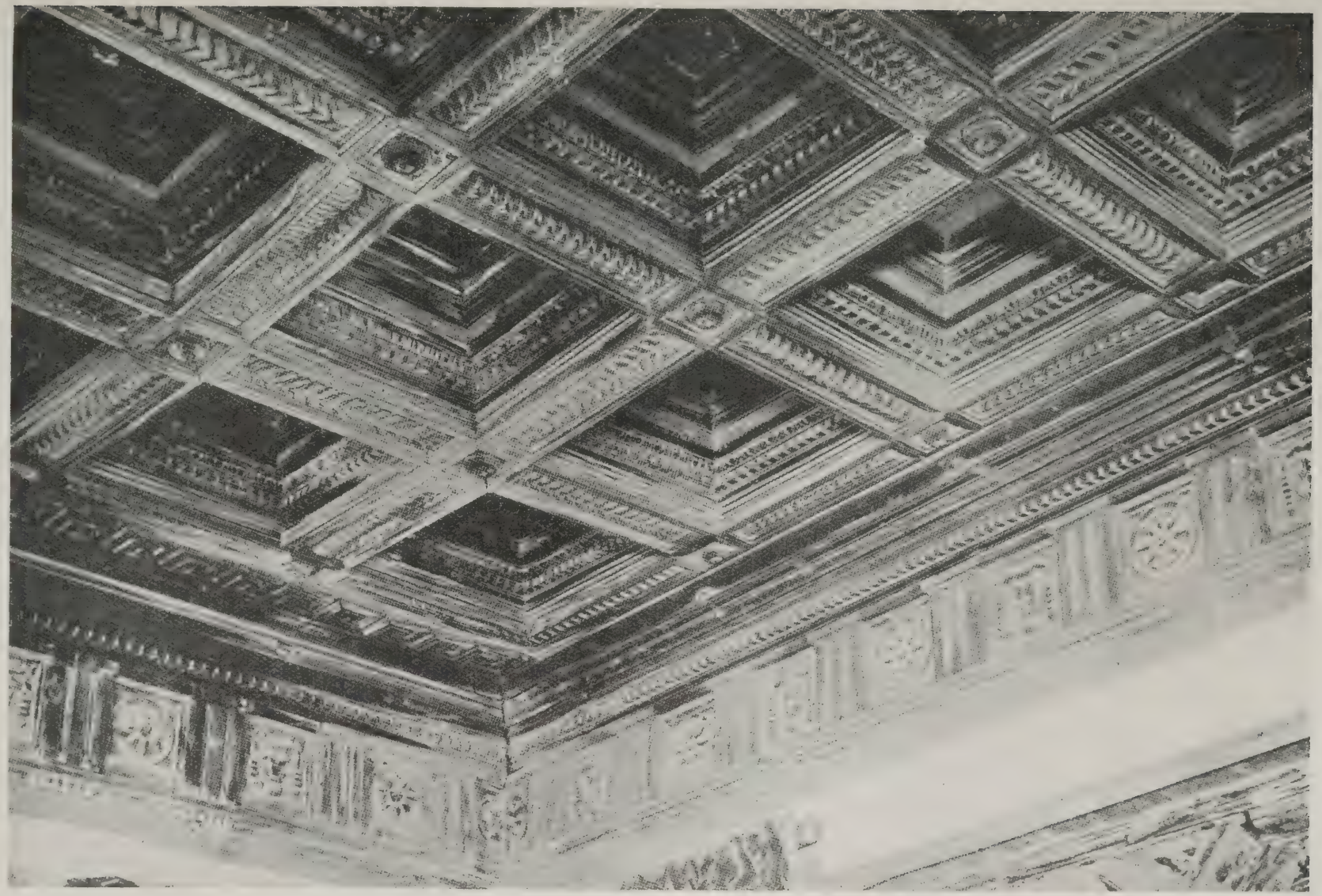
The picture plan will help reader understand any points which this description leaves obscure.

Steps are being taken to raise a f among local residents for the purchas ground for a permanent public o space and recreation ground. And sh the work of forming the Neighbourh Centre be undertaken within reason time, the committee propose to allo £1,000 towards the cost involved in la it out.

The brochure is tastefully produ and contains some interesting plans illustrations. Alderman J. S. Pritc contributes some instructive histo notes on the village. The brochur issued (price 2s. net.) by the Birming Civic Society, of 37 Bennetts Hill, are to be felicitated upon a policy ducing such enlightened schemes town-planning.

the Alhambra (XVI Century)

Pedro Machuca, Architect

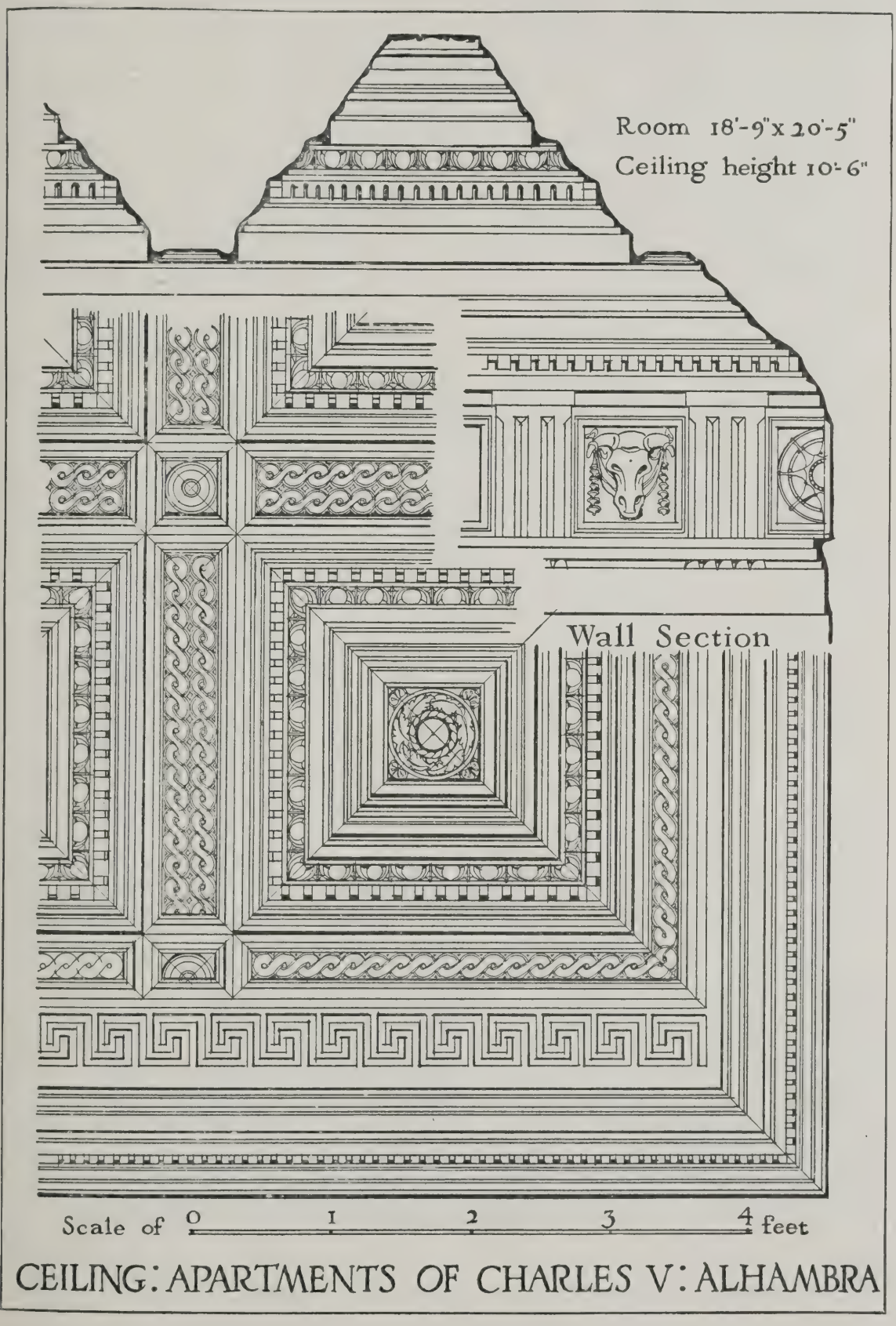


When the Emperor Charles V decided to build a royal residence within the precinct of the Alhambra he also ordered that, pending their completion, a suite of temporary apartments be prepared for him. These rooms were furnished with some remarkably fine wooden (red pine) ceilings in the Italian taste. One of these is shown above.
A measured drawing of it appears on page 283.

Spanish Ceilings

ain is notoriously the most backward try in the world. It actually pos- s a province amongst the hills which habited by Aboriginal natives who nothing but sacks round their loins, who barter skins for food. There is rogress, Spaniards being conservative he core; partly because they are of antic temperament and love old gs—old portraits, dresses that have seen many generations—and partly because they are in all practical matters incorrigibly lazy. Yet in art they have the industry of ants. Laziness is reputedy a note of artistic natures; and it is "a very pretty paradox" of the Spanish that while they abhor labour, they will produce art which, for exquisiteness of craftsmanship, ranks with the masterpieces of Japan. A recently published portfolio on "The Decorated Wooden Ceilings of Spain," by Arthur Byne and Mildred Stapley, shows examples of Spanish ceiling decoration which savour strongly of the intricate Japanese flavour. To Moorish influence, of course, is due this Eastern character of Spanish art.

During the Renaissance, plaster became fashionable for ceilings in all European countries, many wooden ceilings being destroyed to make way for plaster decorations; but in Spain the national characteristic of conservatism asserted itself. Timber ceilings were left



CEILING: APARTMENTS OF CHARLES V: ALHAMBRA

(From Byne and Stapley's "Decorated Wooden Ceilings in Spain.")

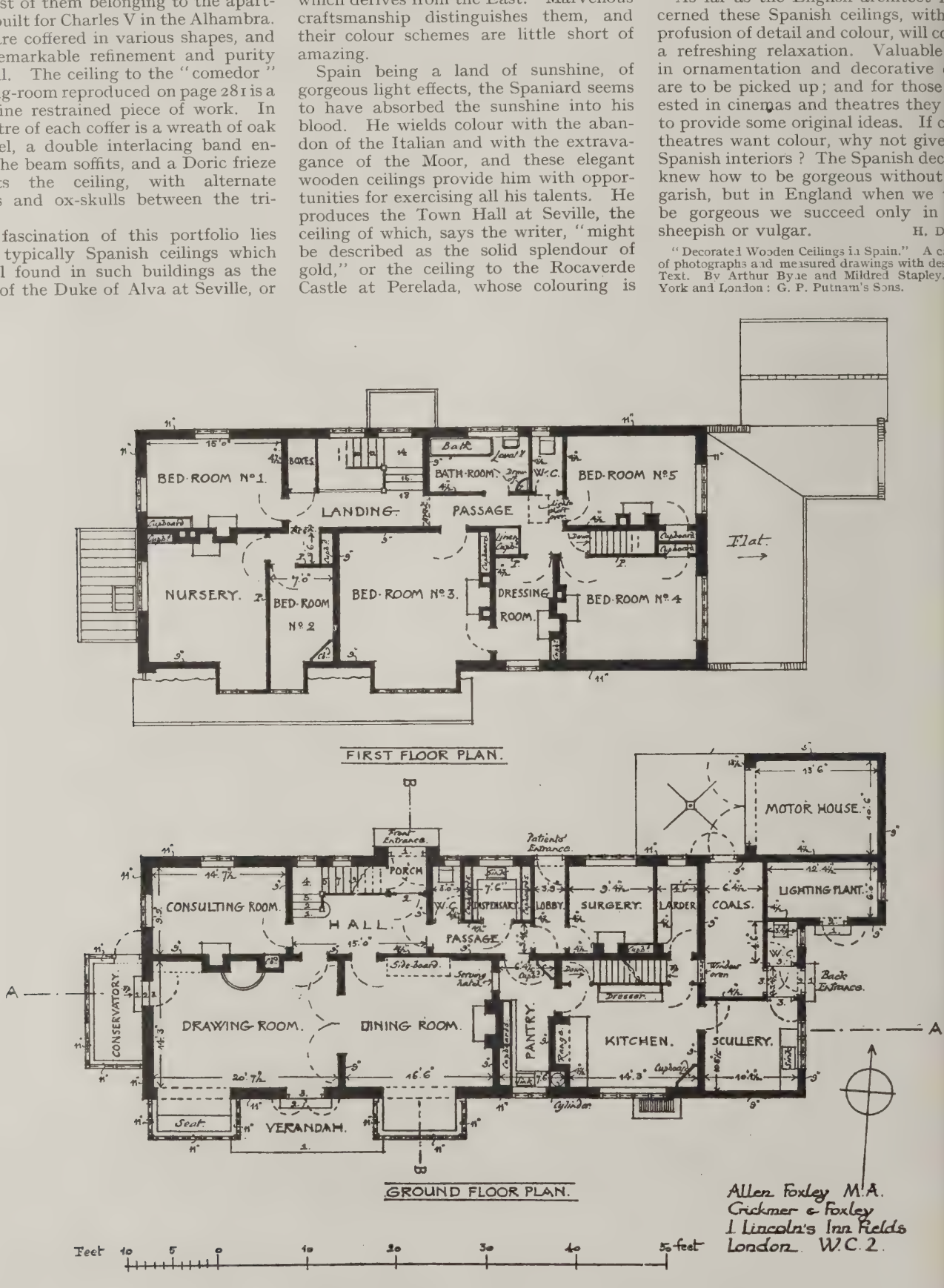
intact, with the result that they are more numerous to-day in Spain than in any other European country. From the many examples available, the authors of the portfolio now before us have selected a number of typical specimens, dating from the thirteenth to the seventeenth centuries, and representing a curious medley of Moorish and Renaissance motifs. Of pure Renaissance ceilings there are few; the finest of them belonging to the apartments built for Charles V in the Alhambra. These are coffered in various shapes, and show remarkable refinement and purity of detail. The ceiling to the "comedor" or dining-room reproduced on page 281 is a really fine restrained piece of work. In the centre of each coffer is a wreath of oak or laurel, a double interlacing band enriches the beam soffits, and a Doric frieze supports the ceiling, with alternate rosettes and ox-skulls between the triglyphs.

The fascination of this portfolio lies in the typically Spanish ceilings which are still found in such buildings as the Palace of the Duke of Alva at Seville, or the Chapel of the Counts of Mallorca—the last-named utterly mediæval in character, yet built as late as 1604, when Inigo Jones was returning to England from his Italian travels. These, with their bizarre details of Moorish origin, their richly decorated panels, elaboration of ornament, and sumptuous display of colour, have all the romantic suggestion of extreme age, as well as a full share of the magnificence which derives from the East. Marvellous craftsmanship distinguishes them, and their colour schemes are little short of amazing.

Spain being a land of sunshine, of gorgeous light effects, the Spaniard seems to have absorbed the sunshine into his blood. He wields colour with the abandon of the Italian and with the extravagance of the Moor, and these elegant wooden ceilings provide him with opportunities for exercising all his talents. He produces the Town Hall at Seville, the ceiling of which, says the writer, "might be described as the solid splendour of gold," or the ceiling to the Rocaverde Castle at Perelada, whose colouring is reminiscent of Pompeian splendour, and yellow against black give a Japa effect, and the rafters are often decor very much in the Pompeian man There are some excellent coloured il trations in this portfolio, and, conside the difficulty of the subject, the ph are on the whole good. The authors to be congratulated on ample treatm of a richly varied subject.

As far as the English architect is cerned these Spanish ceilings, with t profusion of detail and colour, will com a refreshing relaxation. Valuable h in ornamentation and decorative de are to be picked up; and for those in ested in cinemas and theatres they o to provide some original ideas. If cin theatres want colour, why not give t Spanish interiors? The Spanish decor knew how to be gorgeous without b garish, but in England when we tr be gorgeous we succeed only in b sheepish or vulgar. H. DE

"Decorated Wooden Ceilings in Spain." A colle of photographs and measured drawings with descri Text. By Arthur Byne and Mildred Stapley. York and London: G. P. Putnam's Sons.



HOUSE AT BRENCHLEY, KENT: GROUND- AND FIRST-FLOOR PLANS.
ALLEN FOXLEY, M.A., ARCHITECT.



Photo: C. P. Steel, Rye.

This house, designed for a country doctor, was begun late in 1914 and carried out, under difficulties as to materials and labour, during the first year of the war. The site slopes ste eply toward the south. The prospects in all directions are pleasing, and to the south there is a magnificent view over many miles of charming country. These considerations dictated the long narrow type of plan, following the contour lines, and the large hipped roof of red tiles is after local precedent. The house is built of brick, roughcast, and steel casements with lead glazing are used throughout. The general contractors were Messrs. Edward Punnett and Sons, of Tonbridge.

Fifth Avenue, New York

By PROFESSOR C. H. REILLY

FIFTH AVENUE is the most exciting street in the most exciting city in the world. At any rate, this is true the daytime. At night Broadway, with exaggerated Earl's Court effects, its at drawings in electric light high up inst the sky of giant motor-cars, ama-clad men and women, appearing l disappearing, is so fantastic and urd, and withal so thrilling, that for w hours round about midnight it dis-ces the other thoroughfare, not only the careless multitude, but for the ous person too, if such there be when or she has once trodden its stones. g after twelve o'clock vast crowds its ample sidewalks, pour in and out ts endless theatres and its always open ps, and get carried away with the ival spirit of its illuminated adver-ments. It has its skyscrapers, too, ch Fifth Avenue has not, and these always strangest at night. To see liant windows and towers of light ting in the sky, where ordinarily one ects to see stars, means that one treads pavement in no solemn, downcast ner. One walks on air, not knowing t to expect. A vermilion giant may denly grin at you in the place of the n, and if you stand agape you may, equal suddenness, find yourself surrounded by artificially brightened eyes from all parts of Europe. Certainly, Broadway has its thrills with which Fifth Avenue cannot compete. It would, of course, scorn to do so. Its wonders are for the saner hours, when Broadway, in its turn, is apt to look a little dingy.

Let us return, therefore, to our proper subject, and try to form some general idea of its ordinary aspect. I think if one imagines a deep, dark, strongly-flowing river, gliding swiftly and silently between great white cliffs of varying height, one will come near to it. The surface of the water is black with occasional spots of green. The black is due to endless streams of sleek, satin motor-cars, eight abreast, in four lines either way, which all glide along at the same pace. The green is due to the motor-omnibuses, free from all advertisements, which dot the surface. I did not see a horse-drawn vehicle in Fifth Avenue—perhaps they are not allowed. The black river surface, which flows on for the five miles or so of the street, has an occasional rock in the centre of it. These rocks, which are really wooden towers from which the traffic is directed, are placed on the crest of the slight rises in the undulating surface of the street—I am afraid my metaphor is failing. In them a big green or red light shows night and day, and with its appearance the whole five miles of river suddenly stops or, equally suddenly, flows on again. When it stops, the waters divide, and vast crowds, mostly Israelites as of old, pass over dry-shod. Only those who inhabit the land of the free and the brave would allow themselves to be so strictly regulated in this and other matters. But we have spent enough time on the stream itself, thrilling as it is to watch; let us examine now the perpendicular cliffs and the shore on either side.

The cliffs in the early part of the street are more even in height. They begin with some old residences, but very soon are chiefly inhabited by agents for dry goods. By Twentieth Street, however, hotels and big stores begin, and the street loses such continuity of skyline as it ever possessed. From there onwards it is a series of strongly competing buildings which rarely extend even across a whole block. The effect, therefore, against the sky is very ragged, like an ill-grown set of giant teeth. No long cornice lines run through. There are no continuous roofs —indeed, very few roofs at all—to be seen. In a sense, therefore, it is not a street at all, only a collection of buildings, just as a checker-board town is not really a town at all, but only a collection of city



HOUSE AT BRENCHLEY, KENT : DRAWING-ROOM, LOOKING INTO DINING-ROOM.
ALLEN FOXLEY, M.A., ARCHITECT.
(*See page 285*)

blocks. Unity of some sort, some continuous thought or character, is required for both. It is this lack of unity which makes Fifth Avenue at once so exciting and so tiring. One never knows what to expect, there is no place for the eye to rest without distraction. If the individual buildings were bad the street would be a nightmare. As it is they are extraordinarily good, and the street becomes a museum of fine specimens, and one knows how tiring that may be.

These specimens represent European architecture of many modern phases. French and Italian predominate. English is conspicuous by its absence. Gradually, however, especially in the banks and in buildings over ten stories high, for which no European precedent exists, a true American type is beginning to emerge. Roughly, it consists of a rich group of stories near the ground, and an equally rich group near the top with a plain stalk between.

With Central Park the character of the street entirely alters. One cliff disappears, and in its place you have the small trees, grass, and taxi-cab race-tracks of the park. On the other you have individual houses, a few very vulgar, most of them very restrained and elegant. The park itself, though, is a failure. Its winding drives and small hummocks of hills cannot hide its rectangular shape, which the increasing height of the buildings is every day making more evident. It should all be levelled into terraces and re-laid out in a formal manner. Fifth Avenue practically ends where the park ends at 110th Street, and before then begins to degenerate. But out of its five miles of length it has maintained its standard of fine, if competing, architecture, for three miles, and I know no other street of which that could be said.

Extracts from an article in a recent issue of the *Liverpool Daily Post and Mercury*.

Staff for R.E. Services

Applications are invited from gentlemen desirous of accepting temporary commissions on the "Staff for Royal Engineer Services" for a period of two years. Candidates must possess good technical qualifications as architects, civil engineers, or surveyors. A thorough knowledge of quantity surveying is essential. Preference will be given to candidates holding degrees or diplomas of the Surveyors' Institution, and to ex-officers with war experience. The age of candidates must be between 21 and 30. A certificate of birth must accompany the application.

Particulars as regards technical training and experience must be furnished with the application, together with two references as to character. Applicants must be medically fit and willing to serve at home or colonial stations.

Successful candidates will be gazetted as Temporary Inspectors of Works with the rank of lieutenant, and will be paid at the rate of £200 per annum, plus Civil Service bonus, amounting to £233 : total, £433 per annum. The Civil Service bonus, however, varies with the cost of living and is likely to decrease. They will not be eligible to receive any other Army allowance, except free passage overseas (if required) and travelling allowances. Applications should be addressed to The Secretary, War Office (F.W.4), S.W.1.

Society of Architects

Nomination List for New Officers.

Following is the nomination list of The Council of the Society of Architects for the year 1921–22 :—

President	Sir Charles T. Ruthen, O.B.E.	Swansea
Vice-Presidents (4)	George H. Paine	London
	Major C. F. Skipper	Cambridge
	Alfred J. Taylor	Bath
	Thomas Wall s	London
Hon. Secretary	L. Sylvester Sullivan	,,
Hon. Treasurer	Edward J. Partridge	Richmond
Hon. Librarian	Noel D. Sheffield	London
Council (5 London Vacancies)	R. G. Bare	,,
	F. G. M. Chancellor	,,
	P. M. Davson	,,
	Ellis Marsland	,,
	J. Herbert Pearson	,,
	H. M. Robertson	,,
	Harvey R. Sayer	,,
	Henry Tanner	,,
	Victor Wilkins	,,
(2 Country Vacancies)	H. A. Cooper	Kettering
	John Knight	Manchester
	H. C. Portsmouth	Swansea
	G. C. Vernon-Inkpen	Portsmouth
Licentiate Members of Council	R. D. Coldham	London
	W. J. Fitt	,,
	E. E. O. Lawrence	Southend

ARTICLE 46.—After the issue of the Council's list, any five Fellows, Members, or Licentiates qualified to vote may nominate in writing any other duly qualified person to fill any vacancy subject to their having previously obtained the consent in writing of such person to accept office if elected. The nomination paper, accompanied by such consent, must be delivered to the Secretary not later than the first day of October, and no nomination will be valid if the nominee or any of the nominators are under liability to the Society. Licentiates such shall not be entitled to nomir candidates other than Licentiate Ca dates for vacancies on the Licent representation on the Council.

Society of Architects Masonic Lodge

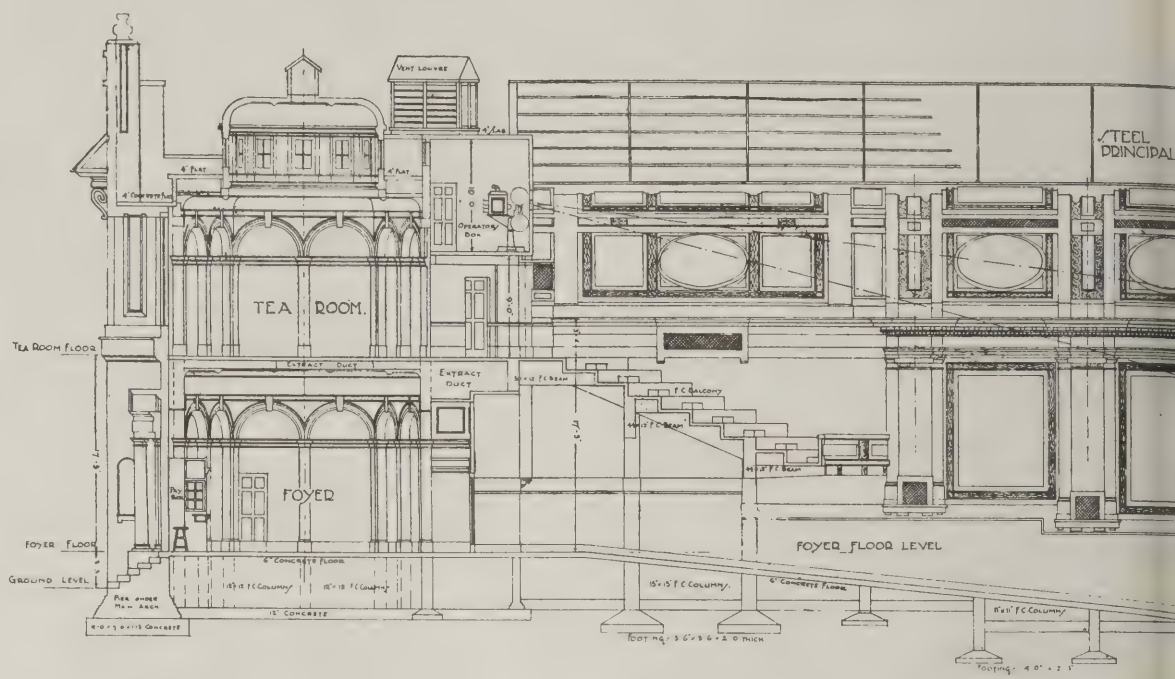
The installation meeting of the Soci of Architects Masonic Lodge and F Chapter will take place at the Holb Restaurant on Wednesday, Novembe at 4 p.m. Members who belong to ot Lodges, and wish to visit the Lodge of Society of Architects, are invited to c municate with the Secretary at 28 B ford Square, London, W.C. 1. The preme Grand Chapter of Royal A Masons of England have acceded to request of the petitioners for a Charte Constitution empowering them to fo and hold a Regular Arch Chapter to attached to The Society of Archite Lodge, to be named The Society of Arc tects' Chapter, and to meet at the Holb Restaurant on the second Wednesday October, December, and February. Th are twenty-one Founders, and those no nated for the Principals' chairs are Mes C. P. Monson, Fred. J. Eedle, and Edw J. Partridge. The Consecration will t place at Freemason's Hall, W.C., November 1, at 5.15 p.m. Further p ticulars may be obtained from the Sec tary, at 28 Bedford Square, W.C. 1.



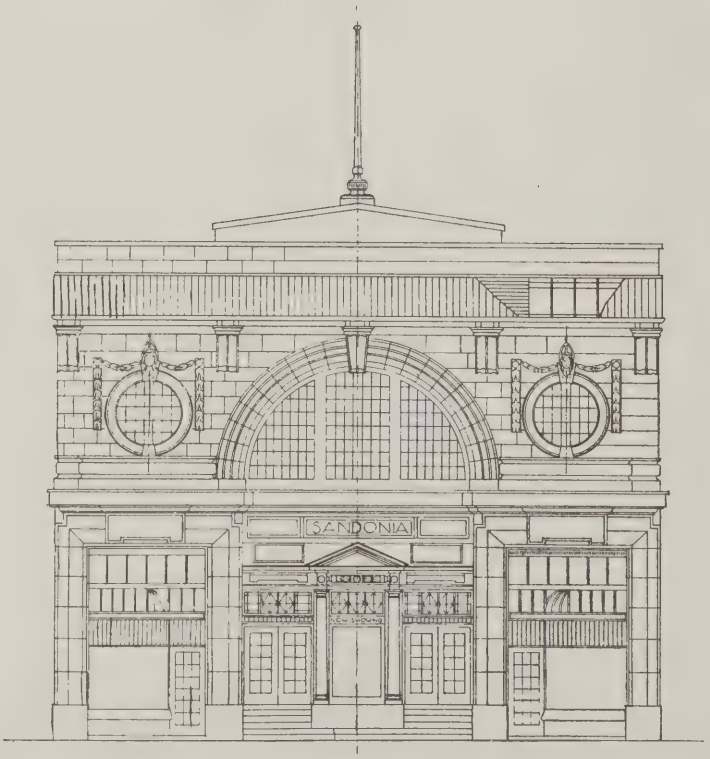
HOUSE AT BRENCHLEY, KENT: VIEW IN HALL. ALLEN FOXLEY, M.A., ARCHITE
(*See page* 285).

Architects' Working Drawings. 40.—Sandon

Sandy and Norri



— LONGITUDINAL SECTIO



— FRONT ELEVATION —
(SANDON ROAD.)



— BLOC

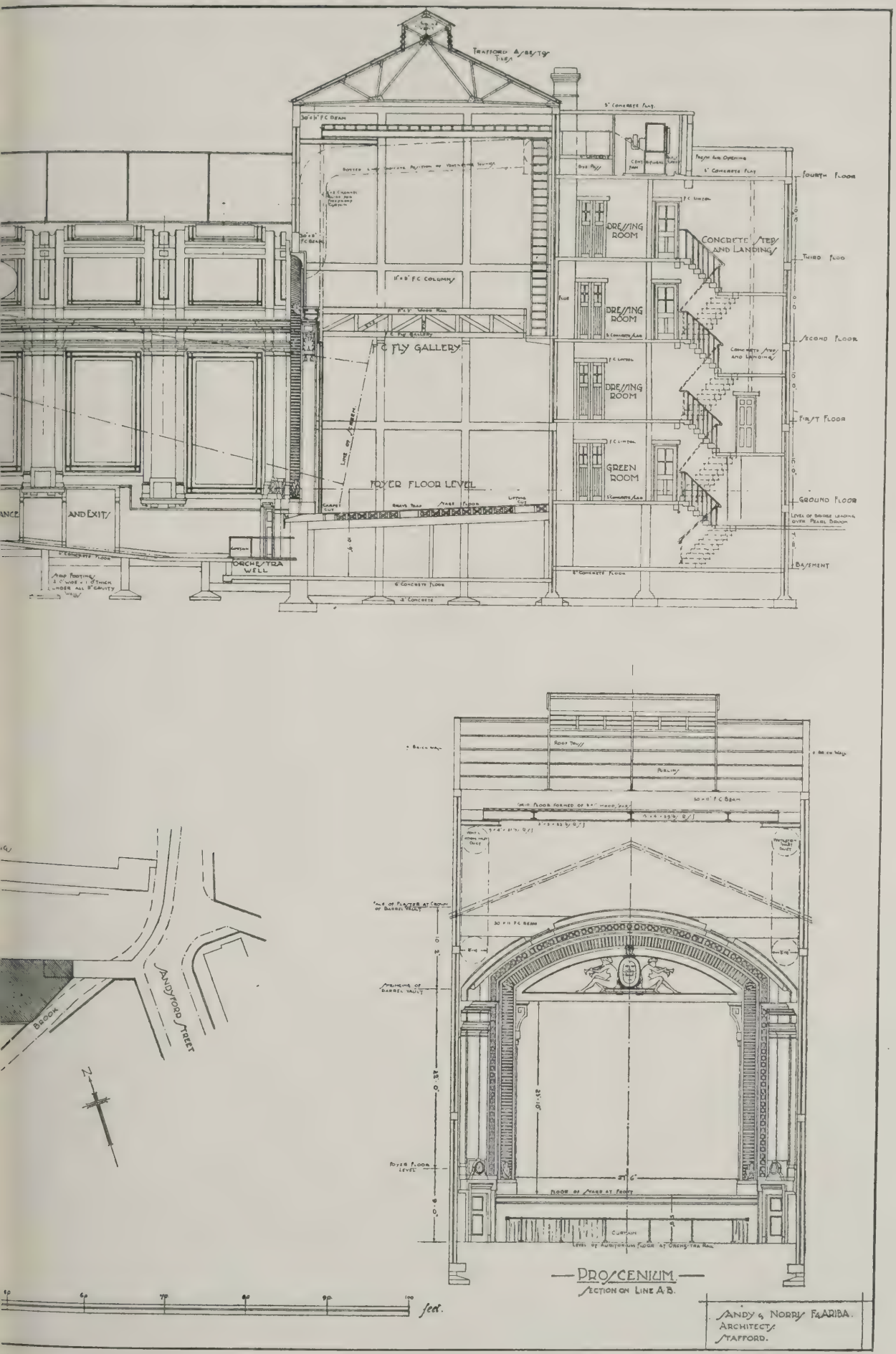
Scale

Scale of

Owing to the narrowness of the site, which was chosen before the architects were consulted, every inch had to be saved
is: in the auditorium 785, in the balcony 206. The building was designed originally as a cinema, but it was found that, owing
a fully equipped stage. The deep projection of the transverse fibrous-plaster beams proves a great help i

, Stafford : Sections, Block Plan, and Elevation

R.I.B.A., Architects



the walls; and because of this a system of 11 in. concrete piers with brick infilling was adopted. The seating accommodation gth of "throw" for the projection being about 110 ft. there was sufficient room at the rear portion of the site to accommodate echo, and the acoustics, considering the length of the building, are remarkably good. For plans see page 295.

Correspondence

How to Educate the Public

To the Editors of THE ARCHITECTS' JOURNAL.

IRS,—After reading the comments n Mr. Welford's article in your issue August 17, by some of the leading men he profession, one is led to regret con-rably the attitude of shutting one's s to cogent facts. If architects could a body, through the governing and esentative media, be prevailed upon abandon the hopeless air of profes-al aloofness, say, for the next twenty rs, there might be some hope for ire prospects and recognition.

ut to achieve these possibilities Mr. ford's plea for more active participa- in commercial enterprise is only one many innovations necessary. The ng aspirant for the profession is ly, if ever, told the truth about things; s not told that he must possess ample ate means if he hopes to strike out his own, neither is he told that both ns and influence are imperative. If he has not got these assets he must be careful in his marriage. If he possesses ability above the ordinary, competitions are his only hope (and a very fragile one) if he does not find the first two in his reach. He may not share his commission in order to get work, and he may not advertise.

Mr. Welford has had the courage to come to his assistance openly and boldly. He advocates a close business association with the commercial world in speculative building, and why not? Unfortunately, his effort is a mere drop in the ocean. Since he has shown the obvious remedy, or one of them, he should be supported.

Mr. Chatterton is partly right in his opposition from an æsthetic point of view, but we are up against a life to-day which is painfully practical. There is no need for pessimism as to probable results of collaboration of the architect with the promoters of a speculative building project. If the two parties did not see eye to eye, it is not likely that the architect's advice would be ignored altogether. Something good would come out of the doubtful evil; prospective builders (let us say also speculative) would be certain to go one step better in the building next door, and so on down the street. The necessity for the employment of a capable architect would become more evident, and with it would come public recognition.

With collaboration, the predominating spirit being commercialism, the Americans have certainly triumphed, spelling architecture with a capital A as a result; and there is no reason why the same should not succeed here, except it be professional etiquette, which is made so much a fetish of publicly though not necessarily privately.

As "Looker-on," says, "Let the architect descend from his lofty perch, forget all about his erstwhile splendid isolation, and devote his magnificently trained mind and painfully acquired knowledge to finding a job of work and making a success both financial and artistic of the same. He will find it pays."

To do this one must start first with the Institute. There is apparently not one man on the Council who is not in well-established practice. With all due respect to the Council, it is hardly likely



THE SANDONIA THEATRE, STAFFORD. SANDY AND NORRIS, F. AND A.R.I.B.A., ARCHITECTS.

that they can take much interest in the hundreds of men endeavouring to make a livelihood. Let the Architects' Assistants' Union make this deficiency their slogan on behalf of the great majority, diverting their attention for a moment, if they can, from extracting a minimum wage from impecunious or refractory principals.

An assistant does not want to be an assistant for ever; and besides obtaining the minimum wage for him, the Union would be in the position to offer (what is far more essential) prospects, which are to-day nil, and thus incidentally add considerably to the prestige of the Union.

The Council of the A.A. might also bring pressure on the Institute to this end; they have 200 students on their books, to whom the matter of the future is of paramount importance.

The principle of collaboration in speculative enterprise being admitted and supported by good design, craftsmanship, and character, is quite capable of affording a means to the end which is so much desired — namely, public recognition through evidence.

NIEL MARTIN-KAYE, A.R.I.B.A.

Labour Wage Reductions

To the Editors of THE ARCHITECTS' JOURNAL.

SIRS,—With reference to the article by Mr. Flint Clarkson on "Labour Wage Reductions" in your issue of August 24, may I point out that your contributor, in giving the combined percentage (table 2), has omitted to take into consideration the special labourer's wage. He will find on working it out that the percentage reduction for this class of labourer is slightly less than for ordinary labourers.

If, however, the proportions for the different classes of labour be as given in my article to which he courteously referred, viz., 60, 30, and 10 per cent. for craftsmen, labourers, and special labourers respectively be considered, the combined percentage would then be closely in agreement with those given in his second table. It may be that his proportions ($62\frac{1}{2}$ skilled and $37\frac{1}{2}$ unskilled) were given to allow for this adjustment for special labourers, if so, he has omitted any reference to it in his article.

There is a slight error in the figures of the last line of table 2, viz., 7.23 and 4.00 should be 7.14 and 3.93 respectively.

W. PARRY-JONES.

We have submitted the foregoing letter to Mr. G. Flint Clarkson, who replies as follows: I did not burden my table with the scaffolder or ganger beyond the mention in table 1, as I wished to produce a table that would enable an architect to prepare the approximate estimates he is so often called upon to make at short notice as simply as possible on the basis of broad facts, which, from experience, he could adjust in his mind to the case before him, also to enable him readily to correct the erroneous impression the lay public holds on the effect of these reductions.

The percentage of unskilled to skilled labour was adjusted to allow for the higher pay to leading hands, and was arrived at by an abstract week by week during the last twelve months in several large buildings now being erected on the basis of profit and cost, the extra pay being added in a percentage to the amount of labour employed; in the same way the slightly higher rates for plumber, smith, and plasterer, the last an unrecognized but an economic necessity at the moment, were adjusted.

Mr. Jones correctly adjusts the percentage for labour since August 1, but I purposely altered 3.96 to 4.00 for the combined percentage, so as to give an easily worked table which was sufficiently accurate.

"Archibald Dawnay" Scholarships

The late Sir Archibald Dawnay bequeathed a sum of money to the London County Council for the provision of scholarships tenable in civil engineering courses, and regulations have now been drawn up for the award of the scholarships. One scholarship will be awarded each year to candidates between sixteen and eighteen years of age who have passed or are exempt from the matriculation examination of the University of London. The scholarships will be tenable for two, or in some cases three, years in the course in civil engineering in the Battersea Polytechnic, Northampton Polytechnic, or the Finsbury Technical College. Additional institutions at which the scholarships may be held may be approved in future. The maintenance grant provided will be £110 a year, from which the scholar will require to pay his tuition fees, etc. The first award will be made early in the Autumn Term, 1921. Application forms (T.2/274) may be obtained from the Educational Officer, New County Hall, S.E. 1, and must be returned on or before September 24 next.

A Yorkshire Garden Village

The Government's change of front in the matter of national housing is leaving many schemes derelict all over the country. Those are fortunate which can claim to have carried even part of their original plans to completion. This applies to the garden village of Cubley, high up on the Yorkshire hills, overlooking Penistone, where the first contract for 94 houses has just been completed by Messrs John Laing and Son. Designed by Mr. Herbert Baker, F.R.I.B.A., collaborating architect with Sir Edwin Lutyens for the new capital at Delhi, before the Ministry of Health types became more or less compulsory, the houses have a distinction of their own sadly lacking in the familiar blocks of uninspiring cottages now dotted up and down the country. Cubley was originally planned for Messrs. Cammell Laird, whose steel works at Penistone absorb the bulk of the population of that town, and who need considerably more housing room for their workers than is at present available, even with the section of Cubley Garden Village just completed. When the Ministry of Health Act came into operation, the local council agreed to take over the Cammell Laird scheme; and a second instalment of 50 houses was projected, when the drastic change in the Government's housing policy left this second instalment, like many si plans, in the air. Messrs. Can Laird are ready to give the site t council free of charge if the pro houses are erected in conformity wit garden village scheme, and the la has been formally approved by the c cil. Here, however, for the time b the matter remains.

The surveyors for the Cubley vi contract are Messrs. Deacon, Son Addiscott, who acted in the same cap for the Chepstow scheme—one of finest examples of housing for the wo classes completed since the war. those of the Chepstow Garden City Cubley cottages have not been ro cast, but left with the concrete sho on the external walls, the "Venet texture given to the face of the "Win blocks being in every respect admir The houses are in three grades, ran from the type with two bedrooms, li room, scullery, bathroom, etc., le 8s. per week, to the roomier type three bedrooms, and a living roo well as parlour, scullery, bathroom, let at 9s. 6d. to 11s. 6d. per week. R are in addition to the rent in each ca

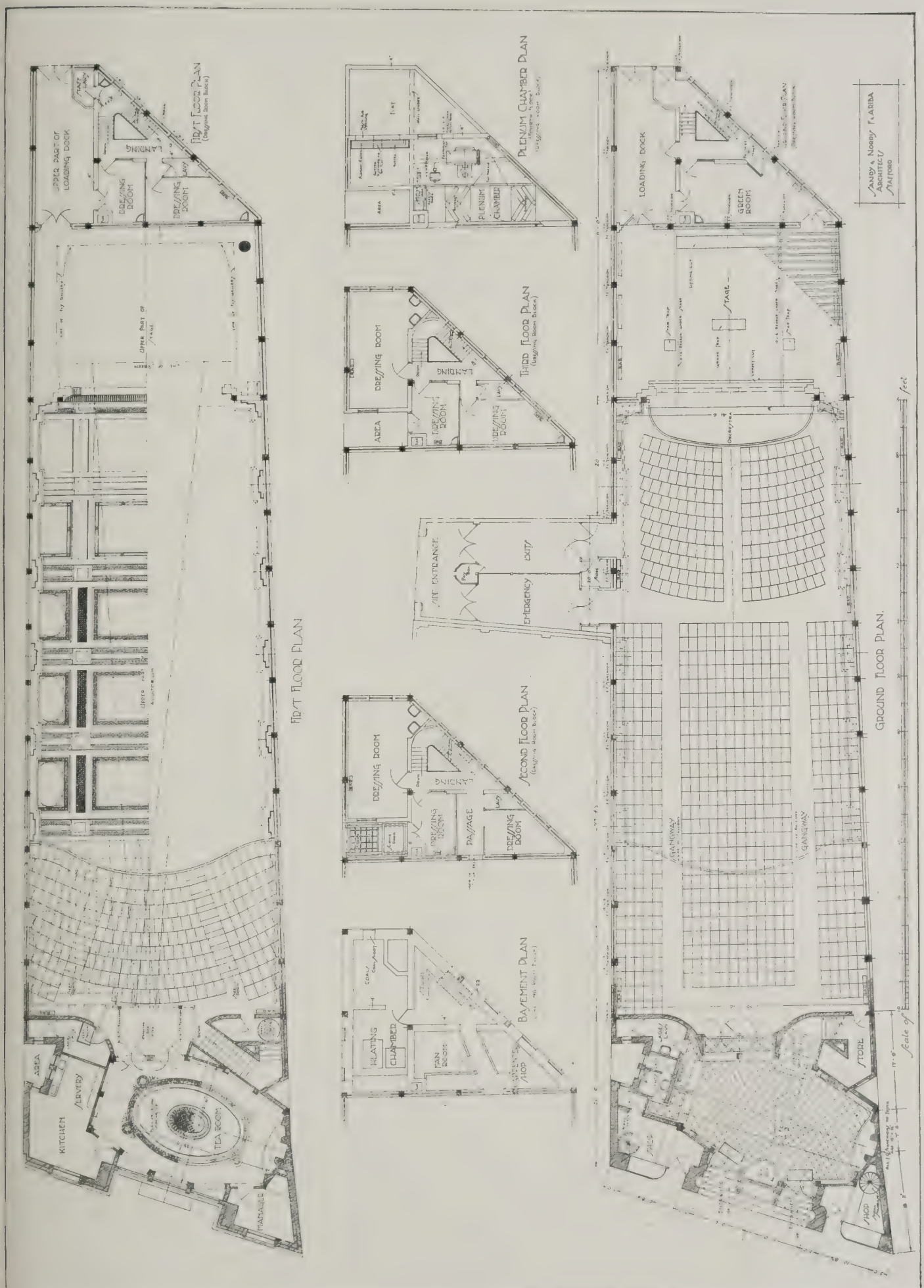
Larger rooms are provided than in of the Ministry of Health types, and architectural treatment furnishes fu proof—if proof be still needed— cottages of concrete blocks can be m as attractive as those of any other mat The Cubley cottages, indeed, with unaffected variety of styles—well- portioned gables, and wide-swee roofs, brought down in some cases t first-floor level—will bear compa with any similar scheme in the kingd

The Queen's Doll's Ho

A number of distinguished archit artists, painters, sculptors and decora are combining together to create a m miniature house for presentation to Queen. This doll's house will be a eight feet high, and will be designed furnished to represent, as far as poss the domestic civilization of 1921. architect who will superintend all de is Sir Edwin Lutyens, and he will the expert co-operation of a numbe famous artists, including Mr. Sargent John Lavery, and Sir William Orpen.

The artists will paint miniature traits of the Royal Family, which adorn the walls of the tiny rooms. ceilings will also be decorated with p ings. Sculptors of note will make m ture statues, and the most expert dec tors will design and execute the furni carpets, wallpapers, and hangings.

A correspondent of "The Manche Guardian" says that "a *tour de for* this kind has been done both in Eng and in France in the eighteenth cent and there are two elaborate dolls' ho on view at South Kensington just no extraordinary historical interest, sho not only the architecture, furniture, domestic methods of the period, bu the utensils in miniature, down to very paper knives and watchmen's rat But nothing, so far as I know, has been attempted on quite the same s in the rank of the artists. The h should be of the greatest historical va and it is to be hoped that it will be pub exhibited. Its conception is a g compliment to the Queen, whose int in houses and housing is very well kno



Some notes on this building are given under the working drawing reproduced on the double-page plate of this issue.

Restrictions Governing City Development

Their Effect in the United States

By A. C. HOLLIDAY

THERE are three controlling considerations of the limitation of heights for buildings: first, utilian; second, hygienic; and third, hetic. While the foregoing are given he order of their relative importance business districts, this order changes both industrial and civic areas, being for the former, first, hygienic; nd, utilitarian; and third, æsthetic. the civic or art centres the order in changes and becomes, first, æsthesecond, utilitarian; and third, hyic.

ully realizing that the domestic probinvolves important factors in dealing height restrictions, especially in the of the many-storied tenement block, writer does not treat of it in this le. The only residential building has been considered is that of the hotel, which is much nearer to an e building in its size, structure, and tions than that of a private dwelling. om the time of the Roman Building s, prohibiting high tenement blocks, ndas, balconies, and other projecs, the problem of height restrictions remained virtually unsolved. Many mpts to arrive at a solution have been e in different cities, but no system adopted meets all the necessary reements. New York has undoubtedly ved great success with the restricpassed during the last few years, but so, in many cases the architectural t has been sacrificed.

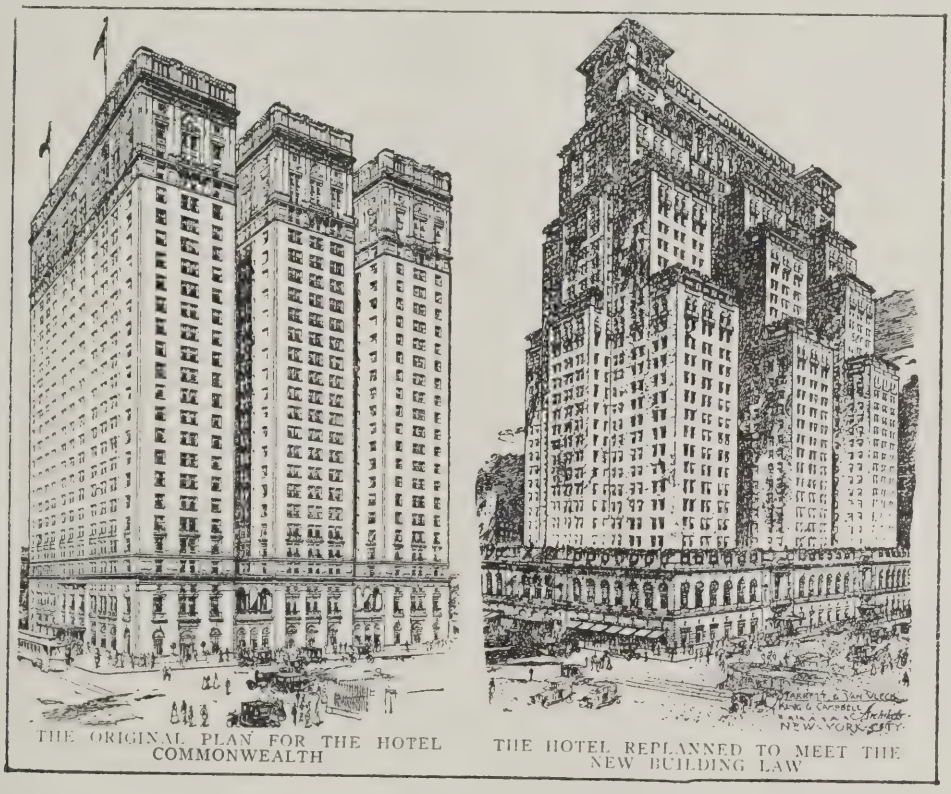
eight restrictions are admittedly an in civic development of paramount rtance; they affect land values, the acter of improvements, and the entire outward appearance of the central districts of large cities. Severe height limitations hamper the growth of a city, though they may have the desirable effect of creating uniform development over a relatively large area; while insufficient regulations permit a property holder to encroach upon his neighbours' right of light, an unequal distribution of high buildings, a loss in land values, and in effect produce a ragged skyline.

It is obvious, perhaps not in this country but in America, that some limitation must be fixed by all cities, the extent of this limitation varying according to the functions of the different districts or zones. The maximum economic traffic load which the business districts of a city and their arteries can carry will determine to a large extent the various heights of buildings in the commercial, industrial, wholesale, and retail sections. This in turn will depend upon anticipating all the possible mediums of increasing traffic capacity, such as traffic regulation, tubes, the designing of the considered section, and the final width of the street. High buildings may be permitted in a given street when the abutting property owners will agree to widen the street sufficiently to accommodate the increased traffic. Another dominating factor is the angle of the sun's rays in determining height in close built-up residential districts. In unbuilt-up districts the orientation of the block, in conjunction with the effective angle of the sun's rays, will be found an important consideration in determining the height limitation to be established for such a section when fully developed.

Æsthetically, the height of public and semi-public buildings will be partially controlled by the vertical optical angle at which the average individual readily conceives the object. The many and varied systems of height limitations may be classified as follows:--

1. The flat limit.
2. The street width or some multiple of it.
3. The street width increased or diminished by an arbitrary unit.
4. The street width increased by the amount of set back.
5. The limit governed by a sloping line, i.e., a line taken from the opposite side of the street.
6. The limit governed by sections, i.e., height controlled by area of cross sections or elevations.
7. The limit by cubage.
8. The limit by cubage in proportion to the width of the street.

The logical height limit has undoubtedly been exceeded in the past by many cities and localities in the United States. Allowable building heights were often set so high that it is no limit at all as far as some buildings are concerned. These so-called restrictions only prevented the erection of a few exceptionally high buildings. But during the last few years much has been done to solve the ever-increasing problem, especially in New York, where a most admirable system has been adopted. Other cities—Boston, Washington, and Chicago—however, have adopted most stringent regulations to control building heights, and the present ones do constitute very practical restrictions, as evidenced by the tendency in



THE ORIGINAL PLAN FOR THE HOTEL COMMONWEALTH

THE HOTEL REPLANNED TO MEET THE NEW BUILDING LAW

certain districts to build up to the full allowable height.

Boston

Boston has been divided into two districts, A and B, in order to classify building height limitations. In district A, the business section of the city, buildings may not exceed 125 ft. in height. In district B, the residential section of the city, buildings may not exceed 80 ft. in height, except on thoroughfares over 64 ft. in width. On such streets buildings may be erected to a height equal to one-and-a-quarter times the width of the street, but no building in district B may be erected to a greater height than 80 ft. unless its width on each and every abutting public street is at least one half of its height. No building, however, in either district A or B may be of greater height than two-and-a-half times the width of the widest street or square on to which it fronts.

The width of a street is defined as being the distance between the face of the building and the lawfully established line of the street on the other side. In case the widest street is of an uneven width, the average width opposite the building is taken. Where the effective width of a street has been increased by an area or a set-back, the space between the face of the main building and the lawfully established line of the street may be built upon to the height of 20 ft. The conditions under which buildings may be erected to an immediate height between 80 and 100 ft. in district B are found in the Commission's order of July 21, 1905, November 20, 1905. These orders affect the whole of the district B, except those areas in which the height of buildings had been restricted under the power of eminent domain. On streets exceeding this width buildings have their particular height-limit determined by two considerations, one, the width of the adjoining street, and, two, the width of the building: (1) Buildings may be erected on streets exceeding 64 ft. in width to a height equal to one-and-a-quarter times the width of the widest abutting street, but in no case may the height exceed 100 ft.; (2) No building may be erected to a greater height than 80 ft. unless the width of the building on each and every abutting public street is at least one-and-a-half of its height.

These instructions in effect limit the erection of buildings 100 ft. high to sites with a minimum width of 50 ft. fronting on streets, and a minimum width of 80 ft. A building erected on a site less than 50 ft. in width on such a street could be raised only to a height equal to twice its width. The maximum height of a building on a 40 ft. site under these conditions would be the same as the general height for the whole of district B, that is, 80 ft. In permitting the erection of higher buildings on wider frontages, a differential height has been established which, under the most favourable circumstances, might equal 25 per cent. of that allowed on the margin—this premium naturally places a great premium on plottage. The minimum frontage required for the erection of buildings of different heights is indicated by the following examples :—

A building 90 ft. high with a minimum street width of 72 ft. would require a minimum frontage width of 45 ft. A building 100 ft. with a width of 80 ft. would require a frontage of 50 ft.

In order to get the benefit of additional height, a building is required to possess this minimum frontage on each and every abutting public street, which materially adds to the stringency of this provision. Thus, in many cases, a building fronting on two or more streets is restricted to a lower height than that allowed the adjoining buildings which front only on one street and whose frontages are of an uneven width. This provision has a disastrous effect upon the uniformity of the sky-line.

Building heights are measured from the mean grade of the curb stones of all the abutting streets; the average width opposite the building is taken where the street is of unequal width. This street width includes the width of any space on the same side of the street as the building and upon which no building can be lawfully erected by virtue of any building line established by the Board of Street Commissioners, the Board of Park Commissioners, the Commonwealth or the City. All these streets, or portions of streets, upon which buildings may lawfully be erected on one side only, are considered as a width of 80 ft. In the case of irregular or triangular open spaces formed by the intersection of streets, the width of the street is taken as the width of the widest street entering the space at its point of entrance.

The foregiven height limitations apply to the entire city of Boston, with the exception of three small areas, these areas being contiguous to certain parkways, boulevards, public ways, the town square, and the State House. The height of the buildings in these specified areas has been limited under the power of the eminent domain, and they are subject to more stringent restriction than the surrounding districts, where the height of buildings has been limited under police power in order to provide superior light, air, and view to adjacent streets or parks of special character that have been erected at considerable expense.

The provisions affecting the projections above the roof line that were exempted from any height limit and which, therefore, could be erected to any height, were in a most confused state before the passing of the 1905 Act. In the past numerous Acts had been passed by the Legislature limiting the height of buildings. Each of these exempted different projections above the height limit from those exempted by the others. Under these circumstances it was very difficult to say just what projections might and what projections might not be erected above the height limit. Present conditions of limitation exempt the following: churches, steeples, towers, domes, cupolas, belfries, and minor architectural necessities.

Chicago

In Chicago buildings for office and business purposes may be carried up to a height of 200 ft. above the pavement level, on condition they are of fireproof construction; prior to 1911 the height limit for buildings of this class was 260 ft. Tenement or building houses may not exceed in height more than one-half the width of the widest street on which they front, buildings which are set back from the street line being allowed to add the amount of such set-back to the street width in computing this height. New Orleans, Charlestown, Cleveland, an Fort Wayne restrict building heights t two-and-a-half times the width of th widest street with absolute limits 125 ft. in the two former mentioned citie and 200 ft. in the two latter.

Buffalo and Rochester limit the heigh to four times the least dimension witho specific limit in feet, while Toront Canada, permits a height of five times th least dimension, with an absolute limit 130 ft.

New York

Prior to the passing of the "Zonin Law" by the City Government of Ne York, and putting into effect by the Boa of Estimate and Apportionment in Jul 1916, the height of buildings in this ci was almost unrestricted. New buildin are now restricted in height, size, and us these restrictions differing in the differe parts of the 327 square miles of the cit

As far back as 1912 a Commission w formed to study the question of limiti the heights of buildings, and suggested concrete solution to the problem. A r port was made during the following yea this report included the outline of a pr posed law to limit the maximum heig of all buildings, it also showed the nece sity for creating districts or zones different parts of the city.

In general, the law limits the height buildings in proportion to the width the street on which they face, varyi from two-and-a-half times the width the street in the financial districts, o and one-and-a-half times in the rest Manhattan and in small portions of oth boroughs, down to the width of the stre throughout the rest of the city. A futu Equitable building would, if built und the present restriction, be only a third its height because it faces on narr streets, but a tower in the centre of t building could be built half as large aga as the Woolworth tower, and be raised any height. The Woolworth buildi itself, which faces a park, could be v tually duplicated on a similar si Twelve and fourteen storied apartme continue to go up on the main aven and eight or nine story apartments on t site streets, but no building of any kind c go any higher except by setting back fr the street. Towers may be built to a height, but they cannot cover more th a quarter of the lot. Mansards, dorme and terraces are encouraged, in order th light may be brought down into the stre upper parts of buildings can be set ba above a reasonable height.

For the purpose of regulating a limiting the height of buildings, the c has been divided into five classes of d tricts :—

(*a*) The height of the building to eq the width of the street on to which faces; named the one-times districts.

(*b*) The one and one-quarter times d tricts.

(*c*) The one and one-half times d tricts.

(*d*) The two times districts.

(*e*) The two and one-half times d tricts.

These different districts are clearly forth on a height district map, which part of the resolution passed, and h been decreed to represent the charact istics of widely different sections of city. The object of this is to restrict heights of buildings as far as the con

nt development of the district will per-
it, to secure and maintain in every street
certain minimum angle of light in the
ound story windows. In these five
fferent districts additional height is
owed if the building or portion of the
ilding sets back from the street-line, in
e first district or "one times district"
r each foot set back 2 ft. may be added
the height limit. This system is
rked out proportionally for all the
stricts; in the fifth, the two-and-a-half
nes district, 5 ft. may be added for
ery foot which the building is set back.
is interesting to note the effect these
w regulations would have if applied to
me of the existing well-known sky-
rapers. In the following examples the
mber of the story at which the set-back
uld begin refers to the building as
tually constructed :—

The Woolworth Building

The Woolworth building is twenty-
ven stories, or 360 ft. high before it
gins to set back from the street. Under
e new regulations, if this building were
posite the City Hall Park, it would have
begin to set back at the top of the
enty-third story level, or 300 ft. up,
d could have three roof stories. From
e twenty-third story up it could have a
wer, 100 by 77 ft. The existing tower
84 ft. square.

The height of the new equitable build-
g is 496 ft., and has thirty-six stories.
nder the new regulations the building
uld be only nine stories of the present
ight, which are rather high ones, then
would begin to set back. It would be
practical to carry the height above
hteen stories in all.

Facing a public square the municipal
ilding could be twenty-two stories, or
o ft. high, before it would have to set
ck, and could be carried up to the
rtieth story, or 408 ft. high; in addi-
n, there could be a tower on the build-
g 138 by 110 ft. The present height is
o ft., consisting of twenty-four stories.

The height of the Biltmore Hotel is
enty-five stories, or 305 ft. Under the
esent regulations the set-backs would
gin on the street front at the fourteenth
or level, or 160 ft. up, and could go up
the same height as the present build-
g, but it would probably be unprofitable
carry it above nineteen or twenty
ries, or 240 ft. high.

Washington

In Washington, on the north side of the
ry wide Pennsylvania Avenue, between
rst and Fifteenth Streets, N.W., an
treme building height of 160 ft. is
owed. On other business streets the
nitation is fixed at a flat limit of 130 ft.
o building may be erected to a greater
ight than the width of the streets on to
nich it fronts plus 20 ft. Buildings that
e on a public square or reservation
rmed at the intersection of two or more
eets, the course of which is not inter-
pted by such public space or reserva-
n, have their height limit determined
the width of the widest street.

The height of a building is defined as
e distance from the level of the side-
lk opposite the middle of the front of
e building to the highest point of the
of. If a building has more than one
nt, the height is measured from the
vation of the side walk opposite the
middle of the front that will permit the greater height. On residential streets buildings may not exceed 80 ft. or 85 ft., including the roof or parapet. The height of the highest part of the roof or parapet must not exceed the width of the street, diminished by 10 ft. on streets more than 70 ft. wide, 60 ft. on streets between 60 and 70 ft. wide, and the width of the street on streets less than 60 ft. wide.

Light and Air

In social and industrial life sunlight is confessedly of paramount importance. Physiologically and psychologically the value of its influence cannot be denied, and its economic significance is too obvious to need a lengthy discussion. Even with this long-standing recognition of the importance, advantages, and necessity of ample sunlight, the subject has undoubtedly been neglected in the past. Many European cities have adopted various rules and regulations pertaining to light and air, but these in the majority of cases are totally inadequate.

America has been still more guilty with its "Canyons," formed by evil sky-scrapers on either side of whole city blocks, resulting in darkened streets. Sunlight in many cases never reaches the lower stories of such buildings, the rooms being entirely dependent on artificial light and lacking in a proper system of ventilation. It is only comparatively recently that the United States provided regulations for the prevention of the sun's undue obstruction of buildings, and for insurance of its proper distribution within them.

Architects have found that floor space is undesirable at a distance over 25 ft. from outside light, so buildings 50 ft. wide must be served with light on at least two sides. In office buildings, tenements, hotels, and factories, but not shops, stores, or warehouses, a reasonable allowance of one square foot to every hundred cubic feet of contents would suffice for light purposes if coming directly from an unobstructed street or open space. No radiation of light through a light court or skylight should be permitted if less than one-tenth of the area of the court or skylight. That is to say, each room in an office building would require a window approximately $3\frac{1}{2}$ ft. by 7 ft. for every 250 square feet of floor space, the height of the room 10 ft., and the window located on the street front. No room should face on an internal light court larger than the area of such a court, and no room should be lit by a skylight 10 by 10 which would be further than 10 ft. from a point 25 ft. from street light. The admitted sunlight in windows constructed in unduly thick walls is extremely limited, and the entrance of sunlight progressively decreases on the lower floors when the thickness of the wall necessarily increases for structural purposes.

Practical artificial light and ventilation can be developed to satisfy the eyesight and to provide wholesome air for the lungs, but these cannot fully replace sunlight as a pathological agent.

Physicians state that high buildings shutting out light and sunlight considerably add to the danger of tuberculosis, which, of course, is in line with the common knowledge we all have of the conditions under which the possibility of that disease is increased. The cleanliness of the streets in their relation to health is also affected by dark conditions. It goes without saying that on streets with but little sunlight conditions are far worse in winter after a snowfall than they are on sunny streets; the snow melts less quickly, increasing the length of time and work in its removal. These heaps of snow soon become masses of dirt, mud, and refuse, which increases, naturally, the amount of flying dust.

Street congestion is a fact that becomes evident on slight investigation, and high buildings undoubtedly increase it. Note the condition of streets and pavements in a built-up district of tall buildings, in the morning when the buildings are being filled, and in the afternoon and evening when being emptied, and particularly in the lunch hour when people are going in opposite directions. If high buildings were not permitted, hundreds of thousands who are in some cities making use of an abnormally small area would have been spread out, so that street congestion conditions would never have become what they are at the present time. As a matter of safety in the interests of the general public, of the tenants and their employees, as well as the property owners themselves, limitations should be provided which would preclude some of the dangerous and inconvenient conditions resulting from excessively high building construction.

These high buildings make a more serious congestion problem in times of excitement and are therefore dangerous. Besides the question of individuals there is the sewer capacity to contend with. In buildings situated in docking areas the streets are crowded with trucks and numberless carts; unless the building is very broad the trucks take up more space than the frontage and overlap adjoining buildings, which, naturally, they have no right to do, and thus filling up the street they interfere with their own traffic and cause great delay and expense.

Fire Prevention

Under ordinary conditions a fire in a modern steel-cage building would not make considerable headway if its contents were not a special hazard. But conflagrations must not be forgotten, which, when well started, will burn out if not burn down the most so-called "fireproof" steel and concrete construction. If we have high buildings, it is apparent that we must specially safeguard the occupants, and in every building over five stories in height install adequate fire apparatus. Smoke alone would cause great panic in a high building as it rises through the stair walls and elevator shafts. The stairs being generally near the elevators, and never very wide, they would not in most cases act as fire-escapes in times of emergency. It may be stated as a general proposition that the danger to life increases almost in the direct proportion to the height of the building. The nearer to the ground the better chance to escape in case of fire or panic. Every story added to a building diminishes the chances of escape, and the higher the building the greater the ultimate loss of life is liable to be.

In fighting fires in buildings of great height the fire brigade is seriously handicapped, inasmuch as the best apparatus we have is only effective for buildings about 100 ft. high.

(To be concluded.)

New Town Hall for Doune

Progress is being made with the erection of the new town hall at Doune, Perthshire, a gift by Sir A. Kay Muir, Bart., of Blair Drummond. The site is on the Stirling Road. In designing the hall the architect kept it distinctly Scottish in character, and aimed at the old baronial type to harmonize with the ancient Doune Castle in the neighbourhood. Mr. E. S. Bell, of Messrs. Bell and Harvey, architects, Stirling, supplied the plans and superintends the building, which may be completed by the end of the year. In length the hall is 53 ft., breadth 40 ft., and height to the ceiling 20 ft. On either side of the platform are dressing-rooms, and at the entrance are offices, cloakrooms, etc. Upstairs are two committee-rooms, also an office, and a small, open gallery on either side of a fireproof chamber constructed for cinema purposes. This part of the building is supported from the floor by two heavy pillars and has a timbered roof. Heating is by radiators from a chamber below the office. An excellent quality of stone has been used in building. Doune is on the main road from Stirling and Glasgow to the Trossachs.

Fforest Fach War Memorial

The accompanying illustration shows the design of Messrs. C. S. Thomas and Herbert Jones, FF.S.Arc., which has been accepted for the war memorial at Fforest Fach, near Swansea. The memorial takes the form of a retaining wall and entrance gates to the Soldiers' Club situated on the main road. A curved recess has been formed by setting back the middle portion of the wall for about seven feet, and a cenotaph has been placed in the centre of the arc. The cenotaph is to be built of Portland stone, and flanked by walls and steps of coursed rubble of native stone, with steps in the same material. A bronze tablet containing the names of the fallen will be fitted to the front of the cenotaph. The land has been given by Messrs. Glasbrook, and the cost of the memorial is to be defrayed by public subscription.

Health Week

Health Week is to be held under the patronage of the King and Queen from October 9 to 15. The object of Health Week is to focus public attention for one week in the year on matters of health. It is suggested that the dominant idea for 1921 should be "Health, Happiness and Efficiency," and the consideration of what each individual can do for himself and his neighbour in securing a healthy life. The movement was instituted in 1912, and in 1914, at the request of a meeting of local authorities, the Royal Sanitary Institute appointed a committee to undertake the central organization; but local celebrations in each centre are controlled by local committees. In 1920 Health Week was known to be celebrated in over 100 centres, and the committee understand that the week was also observed in many of the 250 other districts with which they corresponded.

The immediate purpose of the movement is to make health during the week the chief topic of public concern; to secure the recognition of the fact that disease is a thing which can and should be prevented; to impart sound information as to public and personal hygiene, and to build up a public opinion which will not tolerate a high disease rate or excessive infant mortality, and which feels as a personal reproach the sight of an ill-nourished or neglected child. Its ultimate object is to bring to all that zest in life which only perfect health can impart.

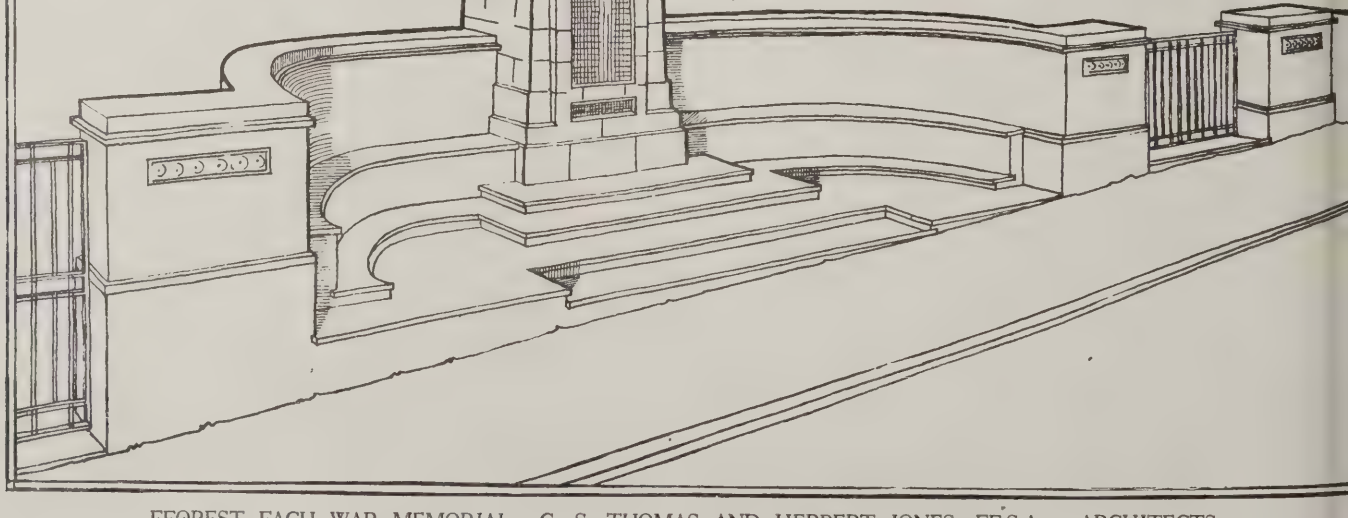
The programme for the week will necessarily be governed by local resources and local needs, but the Health Week Committee appointed by the Royal Sanitary Institute offer a number of interesting suggestions to give a general idea of what may be done. The address of the Committee is 90 Buckingham Palace Road, S.W.1.

Prince of Wales's Lambe Property

A tribute is paid to the housing w of the Prince of Wales in the last an report of Dr. Priestley, Medical Office Health for Lambeth. "It is only fa says Dr. Priestley, "to place on record way in which the Duchy of Cornwa assisting the Council in the work of constructing old houses, and rende them fit for human habitation, in acc ance with the provisions of the Hou Acts. The Duchy of Cornwall claims t outside all Acts of Parliament, but only has the Duchy accepted the Coun provisional or informal schedules, but work necessitated to comply with s schedules is being carried out in a v thorough manner, with the best of m rials, and by carefully supervised lab and much more work is being done t the Council's housing inspectors h asked for in their schedules. At pre the work is being limited to the Kenn ton Road houses, which are being verted into self-contained flats, Cla Street, and Cottington Street. The w may be slow, but it is none the thorough. Great improvements wil noticed in due course in these partic districts."

Dr. Priestley compares the impro condition of the houses already d with by the Duchy with others, ei still to be dealt with or in course of alt tion, and says they are object lesson showing what can be done by owners realize their responsibilities and are ing to pay for good material and labo

These alterations have been carried by the Duchy's own works departm which was inaugurated some months as the result of the interview the Pr of Wales gave to the members of Lambeth Labour Party. It was pointed out to the Prince the advan it would be to his estate if repairs alterations were done by men emplo by the Duchy under the direct su vision of a competent clerk of works. far the new works department has pro a great success.

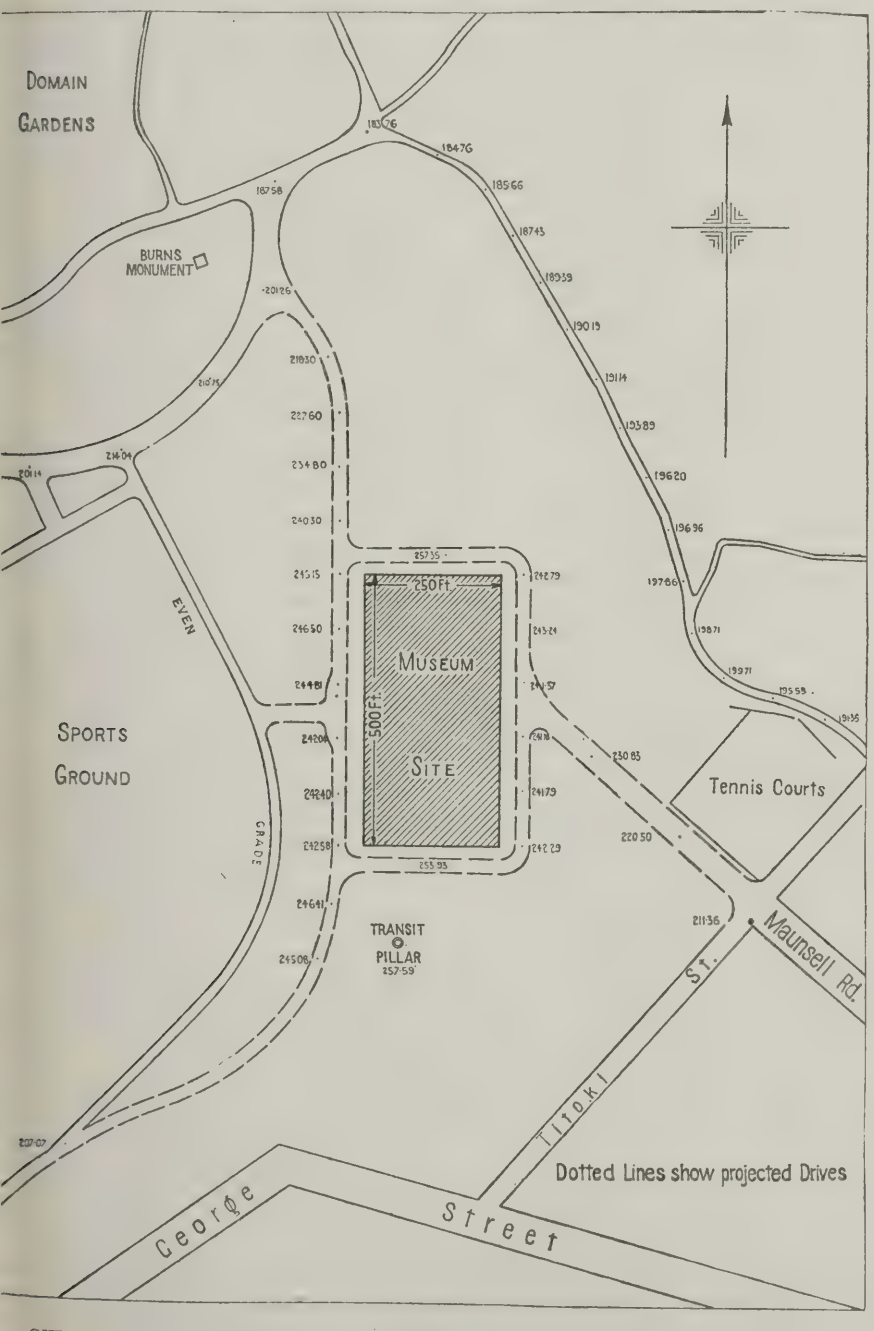


FFOREST FACH WAR MEMORIAL. C. S. THOMAS AND HERBERT JONES, FF.S.Arc., ARCHITECTS.

Competitions Open

·kland War Memorial and Museum Building.

ompetitive designs are invited by the ıncil of the Auckland Institute and ;eum, and by the Auckland Citizens' r Memorial Committee, "with the ble object of providing a noble and ıified building suitable for the war norial of the City and Provincial Dis- t of Auckland, and which will also n a worthy repository for the collec- ıs of the Auckland Museum, including ınrivalled Maori treasures." The site ɔn the Observatory Hill, Auckland nain—a large park of 200 acres. The : of the building is not to exceed the ɔwing alternative amounts : (*a*) For a ding of permanent fireproof materials, ɔ,000; (*b*) For a building of permanent ɔroof materials, with each elevation, ɛr than those abutting on internal rts or areas or on the site of future ɛnsions, faced with an approved build- stone, £170,000. The designs will be judged and the award to the successful competitor made by the Council and the Committee jointly, with the assistance of architects of ability and standing, not competitors, who will be called in in an advisory capacity. Premiums : First, £650; Second, £250; Third, £100. The premiated designs become the property of the Council of the Auckland Institute and Museum, and will be publicly exhibited with the other designs after the award. Under Clause 7 of the Conditions the promoters are not bound to engage the author of the winning design as architect, but it is understood that should an architect be engaged for the building, the author of the winning design will be given the work. If the author of the winning design is employed the premium will be deducted from his commission. The designs are to be in accordance with the by-laws of the City of Auckland. The promoters do not bind themselves to make an award, and will only do so from those designs which they determine to be of sufficient merit and suitability. Designs to be sent to the Secretary of the Council, Mr. T. F. Cheeseman, Princes Street, Auckland, by February 28, 1922. Mr. J. H. Gunson, Mayor of Auckland and President of the Auckland Institute, sends through the Secretary R.I.B.A. an invitation to architects in Great Britain to compete. The conditions and schedule of requirements, together with the plan of site and levels, may be inspected at the R.I.B.A., 9 Conduit Street, W. (We learn that the conditions of the competition are regarded by the R.I.B.A. as unsatisfactory.)



SITE PLAN OF AUCKLAND WAR MEMORIAL AND MUSEUM BUILDING.

Paisley War Memorial.

War memorial. Premiums £250, £200, and £150. Assessors Sir Reginald Blomfield, R.A., and Mr. D. Y. Cameron, R.A. Apply Town Clerk, Paisley.

New Hospital Buildings at Cairo.

New buildings of Qasr el' Aini Hospital and School. Accommodation 1,225 beds. Assessor Mr. John W. Simpson, PP.R.I.B.A. Apply, enclosing cheque or draft for three Egyptian pounds, or its equivalent in sterling, to the Secretary, R.I.B.A., 9 Conduit Street, London, W.1. Closing date for preliminary competition October 3.

Birmingham Hall of Memory.

Hall of Memory. Cost not to exceed £30,000. Premiums £500, £300, and £200. Assessor, Sir Reginald Blomfield, R.A. Competitors must have occupied offices in Birmingham for the past six months. Closing date October 12.

Society of Architects' Licentiates' and Students' Competitions.

Quarterly Competition ending October 31, 1921. Measured drawings, consisting of one sheet to one-eighth scale, one sheet to half-inch scale, and one sheet of enlarged details. They must be delivered, carriage paid, at the Society's offices, 28 Bedford Square, W.C.1, by October 31, together with the original sketches and notes. A first prize of the value of £6 6s., and a second of the value of £4 4s., if more than ten competitors send in their drawings, may be awarded, varied, or withheld, at the discretion of the Council. The Architectural Scholarship, value £15, for not less than three or more than four imperial sheets of measured drawings and details, made between January 1 and September 30, 1921, of some building of historic interest. Licentiates and Students of the Society may obtain further details from the Secretary at 28 Bedford Square, W.C.1.

Air Post Stamps.

The Junior Philatelic Society has instituted an open competition for designs appropriate to a British air post stamp, the first prize being £20 and the second £10. The designs will be exhibited at the London International Stamp Exhibition, which is being organized by the society for Whitsuntide, 1923. The dimensions of the drawings, when reduced, must be approximately 22½ mm. by 18½ mm. or 22 mm. by 38½ mm., the sizes of the current British stamps, and the design must contain features characteristic of the British Isles and include the inscription "Air Mail" and the value 1d., in figures and words. Further particulars may be obtained from the hon. secretary, London International Stamp Exhibition (1923), 44 Fleet Street, E.C.4.

The Week's News

Mansion for Convalescents.

Wrightington Hall has been bought by the Lancashire County Council for conversion into a convalescent home.

Bideford Water Supply Scheme.

The new scheme of water supply of the U.D.C. has been approved by the Ministry of Health subject to certain modifications.

Y.M.C.A. Gift to Westminster Abbey.

A stained-glass window, the gift of the Y.M.C.A., is to be placed in Westminster Abbey.

Architectural Practice.

Mr. Ashley F. Benjamin, A.R.I.B.A., has now resumed practice, and has taken offices at 69 George Street, Portman Square, W. 1. Telephone : Mayfair 597.

Royton Housing Progress.

The first two of the 50 houses now in course of erection on the Ooze Wood site have been completed. In all 76 houses are to be erected on this site by the U.D.C.

Guild Houses for Glasgow.

Glasgow Corporation have accepted the contract of the Glasgow and District Building Guild for the erection of 224 houses at Possilpark. The contract price is £173,804.

Arbroath High School.

Sketch plans have been prepared for the Forfarshire Education Authority for a new building to provide additional accommodation for pupils of the high school at Arbroath. The cost is estimated at £3,000.

Glasgow Housing Deputation at Newcastle.

A deputation from the Glasgow Corporation, which is visiting English housing areas, has inspected the schemes of the Newcastle City Council at Walkerville and Walker. The scheme of the Glasgow Corporation embraces an aggregate of about 3,880 houses.

Housing at Stockport.

The T.C. have decided to erect a further 69 houses on the Dialstone Lane site, in addition to the 32, for which contracts have been provisionally approved. Application is to be made to the Ministry of Health for sanction to a loan of £75,000 in connection with the scheme.

The Dardanelles Memorial.

Lieut.-General Sir Aylmer Hunter-Weston, K.C.B., D.S.O., M.P., who recently visited the Dardanelles on behalf of the National Battlefields Memorial Committee, recommends that the national memorial should be erected on Quezji Babi (called on Turkish maps Kurgi Baba). Quezji Babi, an eminence about 150 ft. above the sea and 500 yds. north-east of the Helles lighthouse, is the highest point on the southern end of the peninsula. Steps are being taken by the Imperial War Graves Commission to give effect to the report, so that the matter may be submitted to the Advisory Committee recently appointed by the Government at its first meeting in the autumn, when the question of design will be considered.

More Houses for Scunthorpe.

The Scunthorpe and Frodingham U.D.C. have decided to apply to the Ministry of Health for sanction to erect 105 houses, and to carry out an extension of the water supply. This latter work will entail the laying of fifteen extra miles of pipes.

Housing at Banbury.

The Public Works Loan Commissioners have agreed to grant the R.D.C. a loan of £2,000 to complete the Bodicote housing contract. Plans of the lay-out at Wroxton have been approved by the Council, who are obtaining the sanction of the Ministry to erect twelve non-parlour houses at Adderbury.

R.I.B.A. Scale of Charges.

A dictum respecting architects' charges by a judge of the High Court deserves recording. Mr. Justice Greer, delivering judgment in the case of *Smith* v. *Wood and Rozelaar* in the King's Bench Division, expressed himself as follows : "I am inclined to think that if a man goes to a member of the Royal Institute of British Architects and says, 'do this work,' unless he arranges something to the contrary, he is agreeing to pay the charges which are made by people who have those qualifications."

R.I.B.A. Election of Members.

The following applications for election as "Fellows" have been received by the R.I.B.A. Notice of any objection or other communication respecting the candidates must be sent to the Secretary for submission to the Council prior to Monday, November 7, 1921 :—

Davidge, W. R. (*A.* 1904), 27 Abingdon Street, Westminster; and 63 Lewisham Park, S.E.

Biddulph-Pinchard, C. H. (*A.* 1921), 9 Staple Inn, Holborn Bars, W.C. 2; and Eghams Close, Beaconsfield, Bucks.

Vacancy for Architectural Assistant in Zanzibar.

A young architectural assistant is wanted for the Zanzibar Government. He should be a public-school boy and have been trained in a good office and have had a few years' post-articles experience. The salary is £400, rising to £500 by annual increments of £25, with free first-class passages and no income tax. If married, Government would pay half his wife's passage. Four months' leave at home after 20 months' service. Free furnished quarters. He might be allowed to take a certain amount of private work provided this does not interfere with his Government work, and if this were permitted it would add greatly to the value of the appointment. Zanzibar is hot, going to 91° in the hot weather, but not too unhealthy, and the climate is very pleasant from April to November. Cheap polo can be had and practically all other games. Applications should be addressed to Mr. John H. Sinclair, The Secretariat, Zanzibar.

County of Pembroke War Memorial.

The County of Pembroke War Memorial, which has been erected in the county town of Haverfordwest, was unveiled on Saturday last. The memorial consists of a beautiful monument of Forest of Dean stone standing in the public square the foot of the town. On four sides cast bronze panels, one of which bears inscription, while on the other th appear the names of the 1,184 men of county who fell in the war. This i complete record, with rank and regim of each man. In smaller panels app the names of the chief sea and l engagements of the war. The monum is surmounted with the Welsh Dra carved in stone, and is some twenty in height. Messrs. Oswald Milne Paul Phipps, of London, were the ar tects.

Ulster Houses of Parliament.

Stormont Castle, with the adjoin demesne, has been acquired by the Gove ment of Northern Ireland for the p poses of the Ulster Houses of Parliame Ministerial buildings, and Law Cou The castle was erected about sixty ye ago by the Cleland family of Belf under the supervision of Mr. Turner well-known architect of the period. rooms in the mansion are large, include a ball-room 64 ft. by 24 ft. drawing-room 36 ft. by 18 ft., seve other reception rooms with fourt family bed rooms, servants' quarters, offices. The demesne consists of s 235 acres, of which 100 acres are wo land and pleasure grounds. It will some very considerable time before Parliament and Courts of Justice can transferred to Stormont Castle. building will require alterations and a tions to suit the purpose for which i intended.

Sandonia Theatre, Staffo

Following is a list of the contractors the above theatre, of which a numbe illustrations are given in this iss General contractors for brickwork ferro-concrete, Mitchell and Sons, M chester; steelwork to roofs, etc., Hill Smith, Brierley Hill; fibrous plaster wo decorating, and seating, Geo. Pixton Co., London; carrara ware, Doult Ltd.; carpentry, Wm. Chatfield & Stafford; joinery, Taylor & Co., Staffo plumbing work, Scarlett Bros., Staffo marble work, Marble Mosaic Co., Brist steel casements, Williams, Gamon & Chester; painting, Bailey Bros., Staffo Messrs. Sandy and Norris, F. A.R.I.B.A., were the architects.

Publications Received

"Reinforced Concrete Tables." P 2s. 6d. net. Andrew Reid & Co., L Printing Court Buildings, Newcas upon-Tyne.

"Fuel Economy Review." Vol. No. 2, August 1921. Price 1s. Issued by the Federation of Bri Industries, 39 St. James's Street, L don, S.W.1.

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ednesday, September 14, 1921. Vol. LIV. No. 1393

THE ARCHITECTS' JOURNAL & Architectural Engineer

With which is incorporated "The Builders' Journal"



GIOVANNI FRANCESCO RUSTICO

Architect and painter. Born in Florence in 1500, and a pupil of A. Verrocchio. Later on he went to France, where he was taken into the service of that excellent judge of the artist and craftsman, François I. Rustico died at the age of eighty in the house of Pietro Strozzi in France. His mallet, square, and compasses indicate that his bent was mainly architectural and constructional, rather than pictorial.

27-29 Tothill Street, Westminster, S.W.1.

Architecture of the Eighteenth Century. 16.—Royal Naval Hospital, Stonehouse, Devonport



From its similarity to the work of William Robinson in London, the authorship of the Royal Naval Hospital at Devonport has been attributed to that architect. It was built in 1762, and the central group, with its graceful clock-turret, its regularity in the fenestration, its nicely proportioned pediment, and the shape of its roof, is indubitably racy of its period, to which it does no small credit.

THE
ARCHITECTS' JOURNAL
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The Architect and Unemployment

WHY is building enterprise so slack? True, we are not yet through with the holiday season; but the lethargy is of old standing. Business men are advancing all sorts of reasons for withholding their commissions from architect and builder. Business, they say, is weighted down by exorbitant rates and taxes. Extravagantly high wages are demanded by all grades of workers, including rather especially those in the building trades. Railway freights are extortionate. All the means of transit and intercommunication—even postal transmission—are heavily overcharged. A general election is surely impending, and on its result and on the completion of the new Government much may turn to determine the trend and tendency of commercial activity. Turmoils in Russia, Germany, India, Ireland, Greece, and Turkey are contributing much to the perplexity and indecision, and nothing towards the stability on which business prosperity so obviously depends.

This universal frothy effervescence will not affright the shrewd and alert man of business. He knows well both the value of courage and the folly of procrastination. He finds the most recent Board of Trade returns distinctly encouraging. While his more timorous rivals are taking counsel with Messrs. Dilley and Dalley, he is bent on getting ahead. He knows the vital importance of prompt and vigorous action, of "getting there first," not only to his own business, but to the trade and commerce of our country, and to the well-being of our people. He has realized the evils of unemployment. He sees the menace of the dole, the demoralization and general uneconomy of idleness. He is haunted by an ancient tag from Dr. Watts—"for Satan finds some mischief still for idle hands to do," for it is apparent that throughout the kingdom the unemployed are getting out of hand. They are becoming demoralized. As that very practical sociologist, Mr. Bramwell Booth, of the Salvation Army, wrote the other day in "The Times": "One of the most serious dangers of the dole age in which we are living is the weakening of the self-respect and sturdiness of the workpeople. To be paid to do nothing is, economically and socially, bad enough, but to be willing to be paid to do nothing, that is far worse." Unemployment, Mr. Booth reminds us, may drive a good man to crime, "then to prison, and then to heartbreak." He adds: "I do protest this paying for nothing is all wrong. . . . we must pay, and it is evident that we must, let us pay for work." There is considerable danger of unemployment becoming a chronic disease.

Mr. Booth suggests three kinds of employment: on roads, on work of afforestation, and on the reclamation of waste land. It is sound advice as far as it goes. All this work can be provided in plenty, and none of it is useless work, even if its immediate remunerative value does not go much beyond preventing the physical and moral deterioration, in the nation and in the individual, that are the certain result of chronic unemployment. But how much better if these proposed relief-workers could be kept busy at their own trades, in which their activities would be infinitely more profitable to themselves as well as to their employers.

Moreover, it is clear that to keep them out of dire mischief the unemployed must be given work to do. The details of relief work do not shine forth with conspicuous brilliancy from the generally dull pages of economic records. True, relief work gives men and women something to do, but they are about as keenly interested in its performance and in its products—that is because the worker is not interested in the task—as a prisoner is in picking oakum, and for that reason the expenditure on such perfunctory work reaches almost to the summit of extravagance.

Architects are, or should be, keenly interested in social and industrial phenomena, and they are suffering acutely, although with gentlemanly reticence, from the prevalent all-round depression of industry. Why should they not, putting this and that together, represent as fully and freely as possible, wherever and whenever they can make their influence effective, the desirability for the nation's sake of relieving unemployment? and why should they not proclaim, in season and out of season, the fatuity and wastefulness of relief works?

It is no paradox that relief works are a futile expedient. Unemployment is best relieved by providing a normal supply of remunerative work which a man may do without detriment to his self-respect, and do it in accordance with sound business principles.

Architects, who have far too little to say to public polity, and who are altogether insufficiently active in public affairs, would be fully justified in taking collective action in this matter. Individually, they would be doing the community some service were they to cast aside their reserve, or their too rigorous observance of point-device professional etiquette, to urge their clients to cast away all fear and get on at once with their building schemes. It is uneconomical—is hazardous—to speculate on a prospective fall in prices. "Better bear the ills we have" than wait for "those we know not of." To gamble on such an issue is to risk the possibility of heavy loss as the upshot. In the event, the client's residence or his business may cost him a little more if he builds now, or it may not. There is never any certainty about this or about any other issue. He cannot be guaranteed against some possibility of slight loss on this or on any other class of transaction. No undertaking is inseparable from risk. Fluctuations in price are inevitable. Inconstancy is ever a constant factor in all human affairs. If the slight and usual risk were at once boldly faced with respect to building, there are two forms of rebate which must richly and inevitably accrue. The work would be

done considerably earlier than Dilley and Dalley would counsel; and while earlier possession would reward both the house-owner or the man of business—time in the latter case being emphatically money, seeing that less courageous business competitors would be outdistanced—both would enjoy the less selfish satisfaction of doing something to diminish unemployment and to defeat the scandalous dole system. That public-spirited endeavour need not be characterized as a signal act of humanity and good citizenship; for it is quite patent that, being members one of another, in helping the unemployed we help ourselves both materially and spiritually.

That substantial advantages must attend a united effort to promote the general industrial welfare of our country, and hence to prevent the deplorable consequences of unsound economics, is perhaps too vague an aspiration for an architect to urge upon all his clients, except to clinch his narrower but more pointed and presumably more generally effectual argument, which is (to put it as shortly as possible), that the prices of materials having now reached a near approach to what may be fairly assumed to be post-war normal level, and the wages of all operatives having been stabilized at a rate that, according to agreement, will hold good for the next six months at least, now is the time to put building, repairing, and decorating work in hand. If every profession performed the duty which we have no hesitation in commending to the architectural profession—that of appealing at every opportunity to reason, common sense, and humanity, and doing this quite sincerely as a pious and a patriotic act—Britain's business would soon be flourishing, and more especially the key industry of building, which is interdependent with all the other industries, would soon again travel upon the high road to prosperity.

The Trades Union Congress

The building industry does not seem to be specifically interested in the proceedings at the Trades Union Congress which opened at Cardiff on the 5th September. Up to the time of writing this note, the only grievance the builders have brought forward is of a general character. It does not concern builders' working conditions, but is a motion bemoaning the lamentable breakdown of the "Triple Alliance" when workers who had no relish for plunging the entire community into extreme misery to enable the miners to persevere in their heroic endeavour to ruin the country outright. On the understanding that a general council is to be set up for the express purpose, it would seem, of accomplishing this desirable object, the resolution placed on the agenda by the Building Trade Workers' Union was withdrawn. No doubt the Triple Alliance is duly grateful for this merciful reprieve; but in due time it must be again prepared to dodge the brickbats which the Building Trade Workers are wont to throw so heftily but with such erratic aim. By the way, there is something grimly humorous about the loud complaints, at the congress, of unemployment: considering the appalling effects of the so-called coal crisis!

Another Picture for St. Paul's

St. Paul's Cathedral is slowly enriching its interior. With every accession of colour it acquires a further claim to Renaissance character. A little gilding and colouring inside the dome and about the east end have transformed an interior that, for the relief of its general drabness, was dependent on the extraordinarily poor tinting of its stained-glass windows. Its stained-glass mosaics gleam but coldly and inappropriately from the chancel walls, on which they should never have been inflicted. G. F. Watts's wonderfully harmonious blending of bold and rich colours in the replica of his "Time, Death, and Judgment," struck exactly the right note, and would be worth its place had it no better justification than the ray of warmth it sheds around it. Holman Hunt's "Light of the World" also contributes in some slight degree towards the general warmth of tone in which the interior is so conspicuously lacking. Whether the picture of "The Dead Christ," by Romanelli, which the Duke of Bedford has presented to the Dean and Chapter, will further mitigate the gloom and austerity of the interior will presently be seen. If it can on the ameliorative effect, and if, with the lapse of years St. Paul's becomes more markedly a depository for "easel paintings," the need for completing with rich gilding and warm colouring the decoration of the fabric itself will become too obvious to ignore. Although modern opinion in an inveterately Protestant country like England frigidly sets its face against the practice of "turning a church into a picture gallery," feeling in the matter does not run so high as it did; and there is certainly no lack of authoritative precedent. How many of the much-visited churches of Italy owe half their interest and all their popularity to their display of pictures by Renaissance masters? Pictures, indeed, are inalienably associated with the Renaissance style, and to exclude them from St. Paul's on the purely sectarian grounds of objection that have been so often urged against them would be simply a cession to bigotry. Besides, colours having admittedly as powerful an influence on temperament, their continued scarcity in the interior of St. Paul's depresses us with the prospect of a succession of gloomy Deans and dull Chapters.

The Lead-paint Question

It is gratifying to find that an architect is included in the committee which the Home Secretary has appointed to inquire further into the lead-paint question, a subject on which, on a later page of the Journal, Mr. Arthur Seymour Jennings discourses with the authority of an expert. It would seem that the Departmental Committee of 1911 based their conclusions on an incomplete ascertainment of the rather elusive data and uncertain phenomena of lead-paint poisoning. Investigation of facts that have been since brought forward, and investigation of the theories that have been deduced from them, should give the new committee a broader basis for their report; and Mr. Alan Munby, who besides being a Fellow of the Royal Institute of British Architects, is the author of a standard book on "The Chemistry of Building Materials," is doubtless in a position to render invaluable assistance on which he has a twofold qualification to advise. Mr. Arthur Seymour Jennings ought also certainly to have a seat on the committee.

Ancient Monuments

If architects were a soulless and sordid tribe, they would take but little interest in ancient monuments. They would concentrate on new ones exclusively. Architects, however, are the most powerful opponents of the vandals who, in peace or in war, seek to destroy noble buildings, and many a fine old structure has been preserved through the solicitude of architects, singly or combined. It is significant, too, that there are in existence several "architectural and archæological associations," the two interests being implicitly deemed inseparable. Architects, then, will welcome cordially many of the recommendations made by the Advisory Committee appointed last year by the First Commissioner of Works to consider in what respects the Ancient Monuments Act should be amended and strengthened. If a really effective Act had been passed a century ago (when, however, the bump of veneration was but of incipient growth in England), our inherited treasures of art and craftsmanship would have been a hundredfold more numerous. As it is, we are forced to shudder at the depredations of peace-time vandals who pulled down venerable abbatial buildings to build pig-sties or to pave kennels withal. If the recommendations of the committee come before Parliament, formidable opposition may be expected from the private owners of ancient monuments; but these will be overcome if the owners are not expected to keep the monuments in repair at their own expense; and the same observation applies to ecclesiastical buildings, many of which are crumbling to destruction for want of sufficient funds to put them under repair. A strong feature of the Bill which is foreshadowed should be a clause making architectural advice compulsory in every case.

On First Impressions

By CROSSLEY DAVIES

THE first impression counts. That is why some architects put all they know into the front of their buildings. It is why some people with more show than shillings place a stone front over lon bricks, or cover plain deal with mahogany veneer, ce common stone with sliced marble. Most men bow ı to this god of the First Impression. Second sight, all, is a rare gift, and few men go below the surface of gs. It is just as well, for with knowledge may come om, and with wisdom sadness.

ıe first impression is a vital factor in affairs. It repre- a tribute to human vanity which human vanity can- withstand. With women, who judge by instinct and tion—and often judge aright—the first impression is nportant. With men, who do not judge by instinct or tion—and are often wrong—it does not weigh so much, it is still considerable. It is indeed so big that the e science of advertising is the science of the First ession.

ıt advertising is of no use to architects. Of course not. properly it is not allowed. It would ill consort with ssional dignity in any case. One could no more ine architects shouting their wares in the public press ı the hoardings of the streets than doctors or lawyers. heir case competition takes a different form. Yet : are ways in which professional men can, and do, rtise without losing their dignity or lessening their ssional prestige. Indeed, by the use of these methods can, and do, heighten their dignity and improve their ion. They cannot canvass. They must not trumpet virtues brazenly to the world. Yet they must not t the importance of the First Impression. It affects just as much as the business man, though in a different

th the doctor there is what we all know as "the bed- manner." His skill, in the end, advertises itself, but ı depends on what may seem to be non-essentials; the things that make a great noise. There is, for example, ouse he lives in, and there is, too, the circle in which he s. The state he maintains, the way he dresses, the ard attentions he pays to his patients—all are matters which the First Impression is formed.

too, with the lawyer. A name on a door is all the t advertising he may do. But he does much more than He can get his name in the public eye by frequent arances in court. He may win sudden fame by success ensational case. Often he mounts upward by way of cs. What can the architect do? He cannot get s by politics, nor win a fine practice by a soothing way people.

t for the architect, also, there are methods of securing od First Impression which come strictly within his ssional field. It is clear, is it not, that in the first he should live in a house which, both outside and in, res the man of taste. It need not be big. In many it must be modest enough to come within the reach of all purse. Big effects can often be got from small s, though not from small minds. And the architect if he cares to take the trouble, impress other people his culture by the eloquent witness of his own home.

is is legitimate advertising, and it should be uncon- s. That is to say, that no architect worthy of the would want an æsthetic home mainly as an aid to ess in his art. He would need it for its own sake. He l need it because in no other could he live in comfort. f, in creating about him the right atmosphere, he can e same time make of his own house a model of fine s from simple means, he will be doing a sound service e community. Here he can at he will. And certainly his house will advertise him ether well or ill.

There can be no gainsaying the argument that architects should help to raise the public taste by giving the public examples of the ideal home in their own houses. There is here an unrivalled opportunity, for while an architect is too rarely consulted about internal decoration—about paint and paper, furniture and pictures—he can in his own private residence set a standard others may wish to follow. The point does not need much urging. It is almost axiomatic. In theory it is unanswerable. In practice it may well be difficult.

The right house is hard to find; harder to get. Sometimes the best that can be done is to obtain an inoffensive—if undistinguished—villa, happily free from architectural vices, hopelessly free from architectural virtues. Yet after all there is some virtue in neutrality of this kind. It gives the architect a chance to impress upon it something of his own personality.

Some day, perchance, it may be said of the profession—and said by way of tribute—that "architects are known by the houses they live in." Of most of them that may be said to-day. It is generally true that architects set their neighbours a high standard of taste. But still there is room for progress. There always will be as long as even one architect is to be found dwelling in a building architecturally bad. That should be unthinkable. And this high level of taste should take in all the etceteras of a home—pictures, furniture, carpets, curtains, ornaments. And here is the true test. How many will pass it, even in the matter of pictures?

What a chance is here! Nowhere can a man express his taste and his personality better than in his own home. Here he can at least avoid the rigid formality of the Period-furniture passion which so many of his clients, to ease their minds—to say nothing of easing their pockets—so slavishly adopt. Here he can show a far, far better way. There should be a cloistral air about the home of the man of taste. There should be a restful air, too—a sense of snug intimacy, the quietness of true content, the deep and serene joy that belong alone to the real home. And this can be gained—or, rather, let us say expressed—by the use of fine taste. This may sound like a rich man's dream, but it is not so by any means. Taste is not a matter of cash. It is a matter of the spirit. Money cannot buy it, and the lack of money cannot spoil it.

And what applies to the home applies with even more force to the office. The building chosen by an architect to bear his brass plate should naturally be of sound design. It usually is. And the office should be a model for business men to admire. To achieve this may mean much time, thought, and perhaps alteration. Yet it is worth while, for too many architects are careless of appearance. Too many offices are ugly, dingy, and dull. In too many cases there are working drawings on the wall of no interest to clients. Too often the reception-room is uninviting and uninteresting. And here we come back again to the First Impression. Too much care cannot be given to the furnishing and decoration of these rooms.

The drawing office may be neglected. Any room into which clients do not enter may be disregarded, though it were better if here, too, the same care were taken to make the work-place æsthetically pleasing. But the reception-room is all-important. A simple, dignified, chaste scheme of decoration—a few good prints or etchings—if possible a pleasant outlook—an air of quiet good taste—and the client is instinctively impressed. The First Impression counts.

Not only is the credit of the individual architect at stake. His reception-room should be a credit, too, to the great profession to which he has the honour to belong. It is the first step that counts. And the first step in your case is the first step a client takes into your own office.

Damp Buildings: Their Cause and Preventio

By GEO. W. GREY, F.S.I.

MOST of us have, at some time or another, suffered from some form of the "damp house" trouble. It may have been as tenant complaining to the landlord, or as owner being worried by a tenant as to real or imaginary dampness, or as architect to builder called in to advise or effect a cure. Quite apart from any question of worry, damp will shorten the life of a building, and in time destroy the strongest walls and damage the finest decorations. Wet brickwork, however caused, is productive of harm. Apart from the actual inconvenience arising from damp, walls will, if the brickwork is kept wet, become soft and deteriorate, and, when followed by frost, the mortar will be disintegrated and forced out.

Dampness in buildings may arise from many causes. It may be the result of faulty design, from the point of view of the exclusion of weather, or from bad workmanship. Even though design and workmanship are of the best, the premises may have been allowed to fall out of repair. Under the heading of design we get projections such as plinths, these often being a succession of steps, each a damp collector.

Danger of Projections

Projections, for the sake of appearance, are occasionally formed with a square, unweathered, upper surface. There is a danger here of the rain beating on the wall surface, running down, being collected by the projection, and absorbed by the brickwork, the damp then finding its way in to the interior of the building. Such a projection is often found in the form of a plinth just above ground-floor level. In this position the dampness does not always show itself at once, being hidden by the skirting. The first intimation of something wrong is the rotting of the flooring and skirtings, which is often put down in error to bad timber. Some very bad examples of rot from damp have been found where the skirting has completely decayed, the floor-boards being rotted about six inches from the wall, forming a border alongside the external walls.

During the last few years many houses have been built with a base about four feet high in red bricks, projecting about one inch beyond the rough-cast of the upper part. In this projection lies a similar damp-collecting ledge. On a garden city, where buildings of this type has been erected in great numbers, many of these houses on the exposed walls had a dado of dampness from the height of the ledge outside down to the floor. This dado consisted of rotting paper or wall covering darker in colour owing to the damp, with a clear border of extra wet at the position where the damp entered the building. Cures were effected by cutting out, bit by bit, a course of brickwork right round the building, and filling in with a sloped projecting tile, to allow drippings of water to fall clear. A similar ledge is often formed in half timber work, the panel of plaster or brickwork being kept back from the face of the timber framing forming a small ledge at the bottom. This may be overcome by cutting away the plaster and putting in a strip of lead to cover the ledge and project slightly forward to form a drip.

Dampness will often come from walls carried above the roof. In certain types of building the walls of the gables are carried above the roof to form a parapet, and, for the sake of appearance, finished with a brick on edge, with nothing projecting beyond the face to form a drip. In this case the top bricks become saturated from constant exposure, and the lower bricks in their turn absorb moisture from those above, until the wet has crept sufficiently down the wall to make its appearance inside the room. In many cases, in an endeavour to avoid this, either when built or after the wall has been found to be damp, a damp course has been put in under the brick on edge, but without projecting drips. This has not been found satisfactory, as it does not prevent the water which falls on the top of the wall, or that given off by the saturated bricks, from running down the face.

Any damp course to resist downward saturation must project, so that the drippings fall clear of the wall. This, no doubt, detracts somewhat from the appearance of the wall, as compared with a plain surface, but generally it will be found that occupiers who have once had some experience of a damp house look upon weather tightness as of first importance. Rain will occasionally overflow or be blown over the verges and down the face of a gable wall, rendering it wet. To avoid this the tiles or slates should be slightly tilted at the verges, as the tendency of water flowing down a roof slope is to spread out fan-shape. A similar tilt should be given where the roof covering adjoins vertical faces. This tilt will tend to cause the water to flow down the centre of the roof and away from the junction of the roof covering with the vertical faces.

Roof Flats and Gutters

In roof design long flats and gutters should be avoided, as they are always the weak links. This is borne out by the number of repairs required to flats and gutters as compared with those to the main portion of the roof. Repairs to slated or tiled roofs are seldom required. With the exception of replacing a loose or broken slate or tile they require little attention, and in old buildings a new roof is often only required because the decayed roof timbers are no longer able to do their work. The frequency with which new roofs are covered with old tiles bears this out.

This is not the case with flats and gutters. Of whatever material, they are always a source of trouble and expense. If of metal, provision must be made for expansion and contraction by drips, rolls, etc., which are of necessity sources of weakness. To this must be added wear, gutters acting as a means of communication between different parts of the and flats being put to a variety of for which they were never intended, as drying grounds, stores, places to the fresh air in, etc. Snow will accu late to depths greater than that of gutters, resulting, when the thaw mences, in overflowing. Once this happened the occupier probably c the snow from his flats and gut in the process adding to the possibly, damaging the drips and rol

It often becomes necessary to pipes through roofs, expansion pipes the hot-water system and soil pipes h common instances. There is some culty in making a weather-tight between the roof covering and the The usual procedure is to dress a pie lead up to fit the outside of the pipe, to pass the pipe through the centre. is quite weather-tight as far as the j tion between the pipe and the roof c ing is concerned, but generally a occurs, unless some further precau is taken, owing to the rain beating the exposed portion of the pipe and ning down, finding its way between pipe and the lead. This can be avo by packing with red and white lead binding with copper wire, turning lead down over the wire.

Effect of Driving Rains

In exposed situations driving rains find their way through walls owin absorbent brick, to absorbent morta to both. The risks of driving rains fir their way through may be increase unsuitable pointing. A wall with wea joints well pressed in and struck to outwards at their lower edges is likely to be damp than one in which joints are struck to form small ledge the brick below. These small ledges catch the driving rains, and the blowing on the face of the wall wi tend to blow any dampness into work.

Joints cut off as laid give a char appearance to certain styles of b work, but as they are not pressed in the trowel and do not receive a sm face, they are not as good a wea excluder as are joints "weather stru Joints left raked out to give an old-v appearance are still worse. These big ledges to collect water and reduc effective thickness of the wall by depth to which they are raked out.

The domical wire covers put to g outlets are often causes of overflo These act as strainers, collecting leaves at one point, and, sealing the ou cause an overflow. They are put in the idea of reducing the risk of a stop in the down pipe. It is seldom, how that a down pipe becomes choked, a sectional area required to take away water is usually greater than the la leaf will block, and, in addition, outlet from the gutter is usually le sectional area than that of the pipe.

Skylights where the glass is lapped often draw in the damp by capi attraction. This only takes place w

War Memorials. 19.—Hawarden, Cheshire

G. Gilbert Scott, A.R.A., Architect



The war memorial here illustrated stands in a prominent position at the meeting of forked roads in the village of Hawarden, Cheshire—a village for ever associated with memories of the Gladstone family. Wooler stone was used for the construction of the obelisk, and the names of the fallen have been placed on the walls of the flanking base. Messrs. John Thompson, of Peterborough, were the contractors. It would be superfluous to praise the sedate dignity, graceful proportions, and delicate execution of this work.

squares of glass lie tight one upon the r, and can usually be cured by tly parting the sheets, making an joint. Similar troubles have arisen slates where they have been very th and true. In one case—of sheds ig no boarding—a cure was effected lacing between the tail of the upper and the back of the slate beneath a piece of wood about the size of a h-stick, thereby parting the slates stopping capillary attraction.

ins finding their way through the of a wall, whether through cracks or absorption, are largely helped by s, and, when driven or followed by , are much more difficult to keep out a steady downpour. With a steady pour the overhanging eaves protect walls. The rain coming down ver- y is caught by the roof, flows into utters, and passes away harmlessly igh the drains. Driving rains are ted on projections, in small pools or acks, and the wind then drives them the wall or inside the building. ng rains will also blow the water ted at a drip on to the face of a wall, ring this damp.

ndows which have no projecting will, in exposed situations, cause ness. The driving rains beat upon npervious glass, run down, and the from the whole area of the window ncentrated on the brickwork below. sign of this, where there are no pro- g sills compelling the water to drop discoloured patches will be found e brickwork under the windows.

"Throatings" Necessary

is necessary to form a drip or a ting to all copings to allow the water ip clear of the walls. Unless some provision is made the water will be d on the underside of the projecting of the coping to the wall, where it e absorbed. This is one of the faults creasing, the tiles having no throat- A very good result may be obtained, ver, by using the nib of the tile as . Bedding the tile with the concave ownwards is also helpful, the water g to run uphill before it will reach all.

some public buildings where the ier has purposely omitted eaves s, there is a risk of settlement due e water finding its way into the ations. The water from the whole roof is concentrated on the ground urrounding the external walls, and alue of the damp course is reduced it is very high above the ground, rain, after its fall from the eaves to ound, will splash on to the walls the damp course.

some cases, to avoid the risk of finding its way into the founda- and at the same time to enable the rld dripping eaves to be retained, e gutter has been put in at ground This, however, makes the splash- rse, the water, falling upon the hard e of the gutter, splashing higher still. often thought unnecessary to fix s to the eaves where the water will a to a roof at a lower level. This causes dampness from the splash water falling on to the lower roof. dripping eaves, apart from the risks ip, high winds will blow the water descent on to the surface of the

Rough-cast is looked upon by many as one of the best of weather excluders, and it is frequently stated that it is as good as an additional half brick in thickness. It is also generally supposed that bricks behind rough-cast need not be of as good a quality as if they were exposed. This does not seem to be borne out in practice, however, the complaints as to damp being greater from rough-cast houses than from those having ordinary brick facings. Rough-cast is usually full of cracks, arising from many causes, such as faulty materials, bad workmanship, and slight settlements. These cracks are more easily seen when the finished surface is smooth, although they are equally there with the rough finishing. The cracks in the rough surface not being so easily seen, often lead to the opinion that the latter is the better. The very rough surfaces have the fault of forming small reservoirs for the collection of driving rains. From these small reservoirs the water finds its way by absorption, and possibly by capillary attraction, through the cracks into the interior of the wall, saturating the brick-work behind, where the drying suns and winds are unable to do their work.

Sand for rough-cast should be free from salt, which has an affinity for damp. The result of using sand containing salt in any quantity is a rough-cast full of minute holes. The rough-cast is very hard, non-absorbent in itself, difficult to remove from the brickwork upon which it has been used, but full of fine pores, through which the driving rain finds its way, saturating the brickwork behind.

In one case of a damp house both the architect and the builder were deceived by the hardness and non-absorbent appearance of the rough-cast. In this case sand had been used from a tidal river, and this contained much salt. A large patch of the rough-cast was removed, and found to be honey-combed when tested by placing it over a bucket and pouring water upon its surface. The rough-cast let the water through as if it had been a sieve.

In another case of damp the occupier claimed that after heavy rains there were drips at the soffits of some of the windows. No reason for this could at first be found. Every crack and every place that appeared to be a crack was most carefully stopped. Still the drips continued, and, upon further investigation, it was found that the driving rains found their way right through the rough-cast, and were absorbed by the coke breeze concrete lintels supporting the brickwork above. These, after becoming thoroughly saturated, gave off the water they had absorbed in large drops which fell on to the window-board below.

Exposed Buildings

Where buildings are in very exposed situations nine-inch and sometimes fourteen-inch walls, even if of the best quality, are not sufficient to exclude the driving rains. Many remedies for this have been tried, such as rendering with cement and sand finished smooth or as rough-cast, tile hanging, hollow walls, etc. Undoubtedly one of the best weather excluders is tile or slate hanging. Tiles of good quality will exclude the weather on a roof at a pitch as low as forty-five degrees, and slates as low as thrity degrees, without any other form of weather excluder underneath. When hung vertically the work they have to do is less severe, and obviously they will exclude weather when hung vertically even more perfectly than they usually do on a roof. The brick or stone usually employed for facing walls will not keep out damp in any other position than the vertical.

A most common precaution against damp is the cavity wall, but the value of this is often greatly reduced by inferior execution. Mortar may be allowed to drop into the cavity, lodging on the ties and forming direct communication between the inner and the outer halves, or the cavity may be allowed to fill to a depth of several inches at the bottom with mortar. To avoid this precautions must be taken while the walls are being built. Battens the width of the cavity can be used, the battens being raised as each course of ties is built in, and openings should be left at the bottom so that any mortar not caught by the battens can, with a little trouble, be raked out, the openings being afterwards bricked up.

The cavity should be ventilated; air passing through it will tend to keep it dry. Ventilation of the cavity can be effected by leaving an open vertical joint about every three feet at top and bottom. The bottom open joints will also allow the exit of any moisture.

In hollow walls where window and door linings are not used, and the plaster is carried round the internal reveals, the brickwork must be solid at this particular point. One preventive of damp in this position is a piece of zinc, bent, welted, and nailed to the frame and built into the brickwork returns.

Another method to avoid brickwork through the wall is to close the cavity at the internal reveals with slates.

Half-Timber Walls

Half-timber walls will often let in damp, owing to the timbering shrinking and the water finding its way through the joint between timber framing and brick panelling. In all cases the timbering should be grooved to receive the rendering. Although this may not be necessary to form a key for the plastering, it is essential as a weather joint.

Dormers with flat tops, unprovided with gutters, should be made to slope towards the roof, allowing the water to find its way out at the back on to the main roof. Where they are made to slope forward, beads of water form on the edge and are blown into the room should the window be open, or are blown on to the face of the dormer and perhaps find their way through the joint between sash and frame.

Moisture may be drawn up from the ground by absorption and capillary attraction. The preventive of this is a good damp-proof course. Although few houses are now built without a damp-proof course, which is required by the majority of by-laws, many houses exist where the value of the damp course is reduced or rendered useless. One very general fault, by which the value is reduced, is the making up of the garden to a higher level than that of the damp-proof course. Others are scamping by the builder, or inserting at wrong levels. The slates to damp proof courses should be well bedded in cement mortar and should break joint.

(*To be continued.*)

Converting Old Cottages: An Item in Housing Economy

FEW persons who have traversed the countryside can have failed to encounter the too-familiar spectacle of the tumbledown cottage. It has been too common a sight either to ignore or to provoke our special wonder. There are those who have reflected on it, however, and that occasionally their cogitations have taken a very practical turn is exemplified in a very interesting way in a pamphlet prepared by Mr. A. R. Powys, secretary of the Society for the Protection of Ancient Buildings, 20 Buckingham Street, Adelphi, W.C.

This pamphlet, which is entitled "A Cottage Saved," sets forth in full detail the salving (if a nautical word may be employed) of a pair of sixteenth-century cottages at Drinkstone, near Woolpit, Suffolk. These cottages had been supposed to have got beyond repair, but the Society conceived the idea that they could be economically restored to utility. "In 1919 the Committee determined to find a derelict cottage, and to ask one or more of the Society's members to bear the expense of the work of its repair, so as to afford an illustration of what could be done in many like instances all over England."

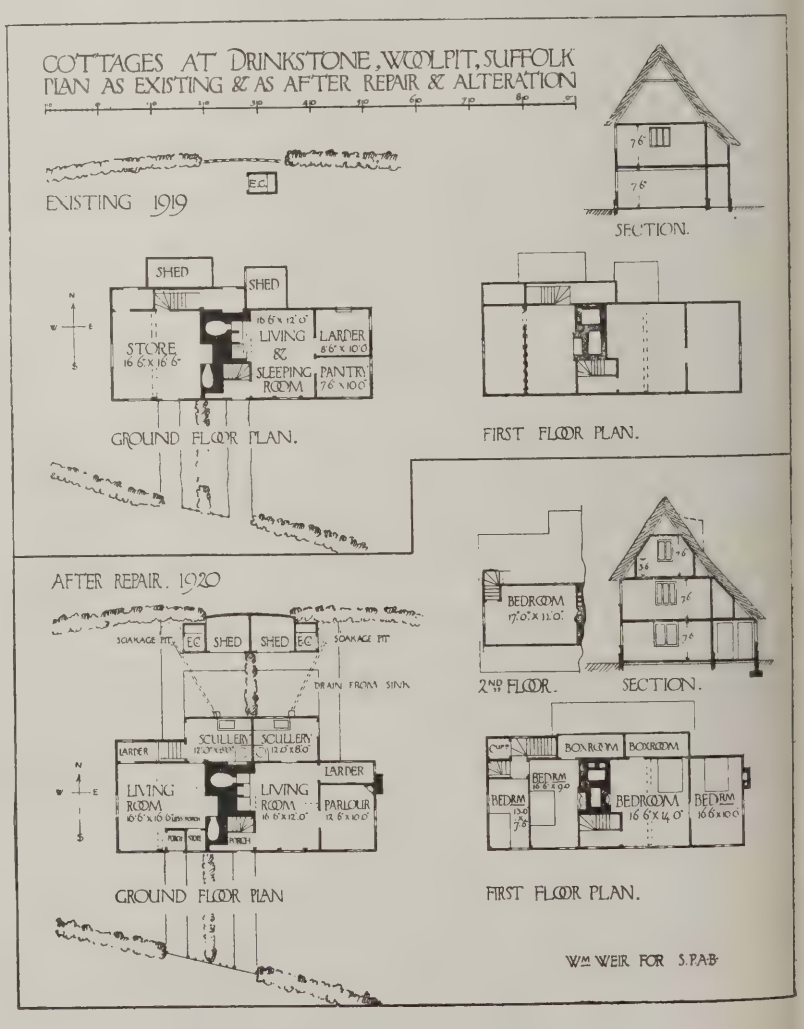
The Drinkstone cottages were deemed worth preserving if only because they are of a better type than most of the cottages that are being put up to-day. In these old buildings, Mr. Powys declares, "there is a generosity of planning that makes them better homes than many that have since been built." On the more utilitarian ground of waste-prevention, it seemed desirable to restore these cottages to usefulness rather than to let them fall to pieces. Although to a casual observer the cottages may have well seemed past repair, the Society thought otherwise, and were of opinion that they could be made sound and habitable at less than the cost of new and inferior cottages built under national housing schemes. This sanguine hope has been fully realized, for whereas one Government house may cost about £950, exclusive of site, the two Drinkstone cottages, when repair was complete, cost £722, including the freehold of the site.

This was rather an extreme case of dilapidation, and thus to have triumphed over it is of good augury for those instances in which it is quite obvious that an even smaller outlay would suffice for putting in order a dwelling that had been too lightly abandoned to destruction. If, as may be assumed, there are in this country thousands of houses that are thought to be, but are not, hopelessly beyond repair, then to follow the Society's example extensively must result in a considerable housing economy, whether in cash or in kind; for, besides the saving of money, there would ensue a substantial relief of the housing shortage.

These Drinkstone houses were in truly parlous case. Much of the thatch had fallen in, exposing the battens to decay. Both gables were leaning outwards. The walls were much weather-worn; the staircase was beyond repair. The flooring was much worn, and the sanitary conveniences were inadequate. All these faults, and some others, were corrected, and a detailed account of what was done is given in the pamphlet, from which a few extracts must here suffice. No new timbers were required for the roofs of the main building, but the roof over the lean-to passage lacked about half the rafters, and the wall-plate needed repair. The leaning gables were tied in by firmly securing the outside and other rafters to the purlins, which were anchored by long iron straps bent round the central chimney. The perished filling between the upright studs was renewed by working up the old filling and adding freshly burned lump-lime and enough water to make it into a stiff paste—three of old filling to one of lime; while for external lath-and-plaster the proportions were one part slaked stone lime, three parts sand, one pound hair, to three cubic feet of material. The surface was finished with a trowel, and the plastering was washed over with limewash, and finished with a second coat toned with Venetian red, which produced a delicate pink colour.

A few further particulars of the work may be usefully quoted from the pamphlet, which may be obtained, price 2s. 6d., at the Society's offices. "No damp-course was inserted at Drinkstone, but it should be explained how the brick base of the walls was treated. The ground was dug away from the face of this founda wall, the brickwork cleaned, and joints raked out. The foot of the wal the underside of the sill piece was t pointed where necessary with cem mortar. The same precaution was ta on the inside of this wall before the concrete floors were laid. This w cost £15.

"It may be of use to explain briefly one or two methods of inser damp-courses into brick and stone w The processes recommended are the s for walls of brick, stone, or flint, bu brick wall is easier to deal with tha stone wall, and a stone wall than on flint. The procedure is to cut out s lengths of the wall at the level decided to form an even bed in cement mo and to lay on that some approved da proofing course, paying particular at tion to the joints between each operat Pinning up should not be done until damp-course (if it is of slate in cem has set, but if lead or bituminous she used there need be no delay. If a wa known to be dry in all weathers the no need to insert a damp-course. Ag where earth is banked against a wall height above the floor line, it has in s cases proved to be sufficient to remov for a depth of 6 in. below the floor l and to a width of 2 ft. for every foo the height of the bank. Where th







COTTAGES AT DRINKSTONE, WOOLPIT, SUFFOLK: VIEWS OF THE SOUTH FRONT BEFORE AND AFTER REPAIR.
WM. WEIR, ARCHITECT FOR THE SOCIETY FOR THE PROTECTION OF ANCIENT BUILDINGS.

impossible, a vertical damp-course outside the wall must be applied, and provision made to carry off the ground water from the foot of the wall. The latter can be done by filling the excavation made for the application of the damp-course with clinker, broken brick, or gravel.

"The repair of the walls and roof of the passage space has been described. A cross wall of 4½ in. brickwork was built to divide the staircase from the larder of the West cottage. The remaining space was used for a new staircase measuring 2 ft. 9 in. in width, and the extra width of the passage against the outer walls was fitted with shelves. The soffit, or underside of the stairs, was not plastered. The staircase unfixed cost £10, and when fixed, together with the shelving, £16. The steep ladder stairs to the attic bedroom and fixing cost £4.

"The whole of the old ground floor paving was taken up and the earth below excavated to a sufficient depth to allow of a layer of hard core, that is, clean broken brick, stone, or flint, being laid. On this hard core was laid a 6 in. bed of cement concrete, mixed one part cement, six parts aggregate including two parts sand, and on this was set 6 in. by 6 in. tile paving in all rooms except the new sculleries, which were finished with cement and coarse sand in proportion of one to three, trowelled smooth.

"It is important when laying a solid floor of this kind not to omit the layer of hard core, for not only does it check rising damp, but also the air spaces of the hard core hinder the cold of the ground from striking upwards, thus keeping the surface temperature of the floor more nearly equal to that of the room, and so checking condensation thereon.

"The area covered with this flooring, including the new sculleries, measures 103 sq. yds., and cost £72.

"A new scullery measuring 8 ft. by 12 ft. was added to each house under a lean-to roof, making a continuous slope with the thatch of the main roof, but having a pitch that was not quite so steep. The outer walls of these sculleries were in 4½ in. brickwork in cement mortar standing on the concrete of the floor with proper damp-course built in them. For the sake of economy deal casement frames costing 20s. each, taken from the destroyed cottage were inserted for the purpose of lighting the sculleries. The brickwork was flush pointed and limewashed outside and inside. A door to the garden was provided from each scullery. The bricks used for this work were secondhand, or obtained from the local brickyard at the cost of £5 a thousand. The cost of the walls, roof, plaster, ceilings, and doors was £65 for each scullery.

"A glazed stoneware sink was provided in each scullery under the window, with discharge into a trapped gulley, from which a properly jointed socket drain was laid to separate soak-away pits near the hedge at the back of the garden. Each pit, or sump, was about 3 ft. in depth below the inflowing pipe, and was filled with clean broken brick to 6 in. above this level. An overflow pipe was taken from each sump to the ditch, 5 or 6 ft. further from the house. This arrangement is amply sufficient for cottages to which water is not laid on. The cost of *each* sink, pit with brick filling, and drain was £10.

"A new galvanized iron copper was provided for one scullery, and the old copper from the east living-room moved to the other, and both were set in brickwork. Flues from these were taken up about 7 ft. above the floor and connected to the large flue from the fire of the living-room of the east cottage. A considerable economy was effected by this means, for it saved the building of new flues for the whole height of the chimney-stack. The copper fires drew well when they were tested during the period that the cottages were undergoing repairs. This work cost £15.

"It was decided while the work was in progress to add fireplaces to the sculleries for summer use, and a new chimney-stack was built with two 9 in. flues against the back wall.

"The space in the roof above the sculleries was given a boarded floor level with the bedrooms; and in the half gable formed by the lean-to roof against the wall of the east cottage a window was put. , . . . Accommodation was provided in this way for the storage of boxes and the accumulations of household belongings, so that no part of the bedroom floor space need be given up to this lumber. The underside of the rafters of these box-rooms was not plastered, and the thatch was left showing. The cost of flooring, with joists (140 sq. ft.) was £10. The total cost of each scullery, fitted with a sink and copper, but not including the thatch or the flooring, was £82 10s.

"In the living-room of the West cottage a 4½ in. brick wall was built flush with the face of the chimney to take the place of the oven, leaving the space it occupied as a storage corner in the scullery. The paper and defective plaster were removed from the walls, and the lime was cleaned from the beams by washing and cleaning with a stiff bristle brush, and the plastering walls between the joists of the ceiling repaired. A new cottage range was set in the chimney opening."

The accompanying illustrations, reproduced here by courtesy of Mr. Powys, show the condition of the cottages before and after treatment, and the architect for the reparations, Mr. William Weir, is to be congratulated on the ingenuity and success with which he has turned old cottages into new, with a considerable saving in cost as compared with that of building modern cottages of less cubical content and, generally speaking, of much less interesting design.

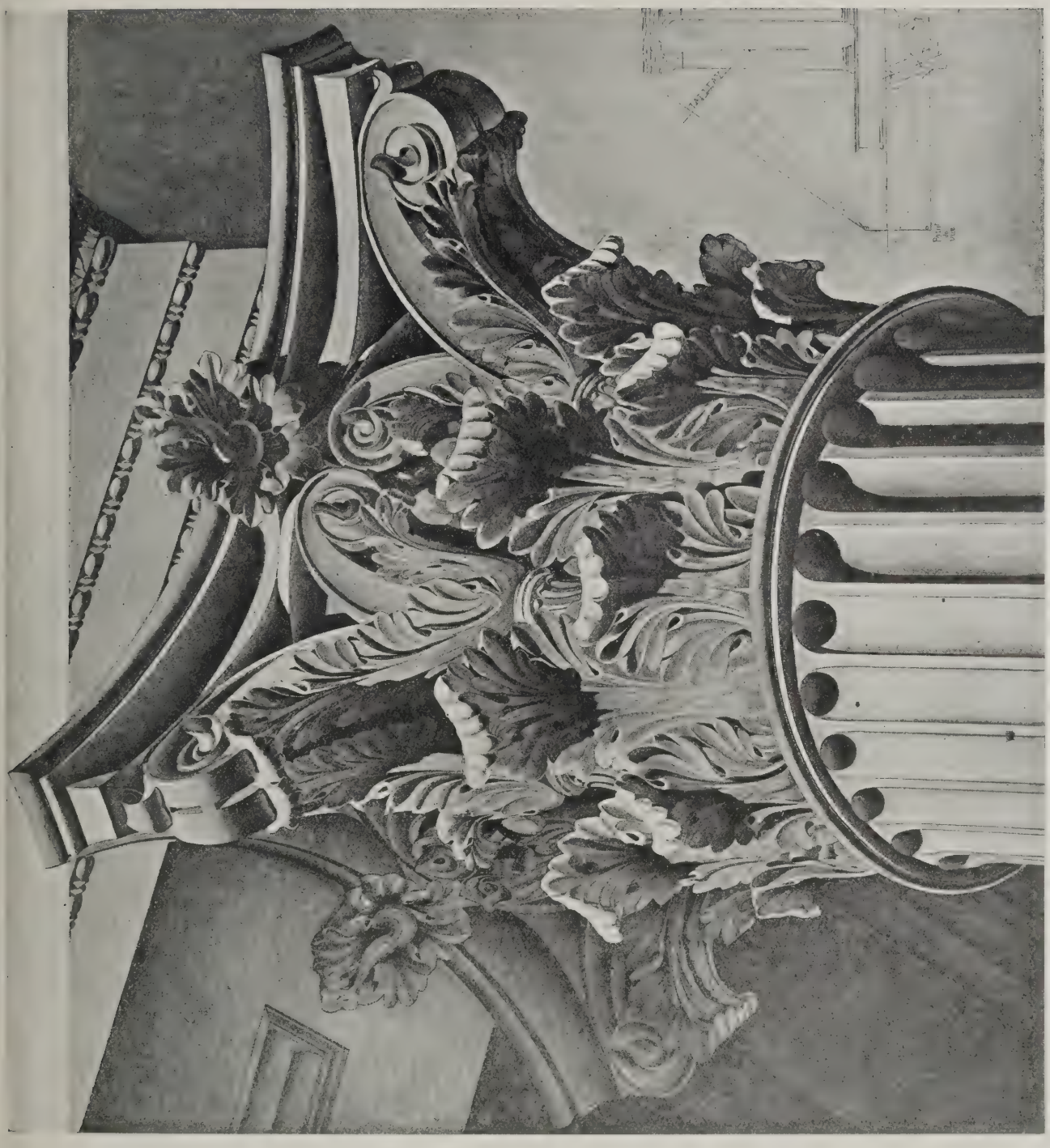
Ministry of Agriculture War Memorial

The assessors appointed by the War Memorial Committee of the Ministry of Agriculture to adjudicate on the competition held recently for the most suitable design for a memorial to those members of the staff who died on active service during the war have unanimously selected the design of Mr. H. Duncan Hendry, A.R.I.B.A. The competition was limited to the staff of the Ministry, and there were 17 entries. Mr. Hendry is one of the Ministry's superintending architects under the land settlement scheme. He has returned the prize to the fund, raised by subscription among the staff, which provides for the memorial. During the war Mr. Hendry saw active service wit Royal Engineers, chiefly in the His design provides for a marble tab cartouche form, surmounted by a b roundel bearing a replica of the old of the Board of Agriculture and Fis within a wreath supported by emb The field of the cartouche bears a s inscription with the names of the f The memorial, which has been appr by the Office of Works, will be erect the entrance hall of the Ministry's offices, at 10 Whitehall Place.

R.I.B.A. Probationer

Since February 1, the following been registered as Probationers o R.I.B.A. :—

Allingham, D. B., New Cross.
Arnold, C. B., Exeter.
Arthur, E. R., Liverpool.
Ashe, J. F., W. Kensington.
Allen, E. C. P., Hereford.
Anderson, W. B., Perth.
Aston, W. J., Willenhall.
Armes, J. O., Middlesborough.
Boothroyd, R. J., Halifax.
Brayshaw, F. N., Birmingham.
Browne, C. A., Birkenhead.
Burland, L., Acomb.
Byers, J., Wigton.
Blyth, J. O., Norwich.
Bird, W. H. F., Westminster.
Bristow, W. E., Grimsby.
Brown, J. S., Sheffield.
Burrington, T., Swindon.
Collins, L. P., Highgate.
Crawley, L., Carnforth.
Caney, A. A., Cambridge.
Calvert, T. W., Micklegate.
Chapman, E. W., Sheffield.
Cowser, B., Belfast.
Cameron, D. J., Glasgow.
Cooke, E. G., London.
Campbell, R. G., Ipswich.
Crowder, P. A., Handsworth.
Davis, C. M., Letchworth.
Davenport, N. E., Kensington.
Dain, C., Manchester.
Du Feu, A. P., Ventnor.
Dawney, P. W., Purley.
Dicketts, H. J., Northfleet.
Dunn, R. R. A., Sunderland.
Emmett, J.W., Harrogate.
Ellis, L. E., Exmouth.
Flutter, A. T., Wandsworth Common.
Finnegan, L., Portswood, Southampton.
Frizzell, F. G., Upminster.
Geeson, A. G., Stapleford.
Gornall, J. M., Prescot.
Green, F. E., Wembley.
Griffiths, E. D., Clapham Common.
Gibbs, W. L., Herne Hill.
Gale, J. E., Birmingham.
Grierson, T., Inverness.
Gimson, H. M., Leicester.
Glossop, J., Arundel.
Graddon, R. H., Southport.
Gradwell, J. R., Manchester.
Gregory, W. J. H., Liverpool.
Harris, J. F., Boston Spa.
Harris, K. W. F., Aylesford.
Hartley, V. F., Blackpool.
Hilton, F., Stockport.
Henson, A. E., Northampton.
Harris, A. F., Southampton.
Holman, E., Oxford.
Hall, A. T. H., Whitley Bay.
Hamilton, C. W., London.
Harrison, J. B., Robin Hood Bay.
Howes, J. F., Hertford.
Harvey, J. D. M., London.
Jones, R. L., Brighton.
Jackman, F. L., Clapham Common.
Kelsall, J. S., London.
Kimber, B. M., Southampton.
Lane, G. C., Carlisle.
Laurie, W. K., Reading.
Lovatt, A. P., Stoke Trent.
Merch, J. H., Ports
Morgan, B. J. M., C ham.
Mew, F. J. T., Lond
Milnes, H. D., Hull
Martin, N., Gorles Sea.
Moon, A., Burnley.
Mills, J. R., Dunde
Morrish, N. W., Ta
Macdonald, A. G., L
Mayhew, J. W., Wa stow.
Midgley, F., Weston Mare.
Matthews, A. S., L
Nield, R. H., Sloug
Oxenbury, T. B., T
Oldacre, W. B., St Trent.
Pegg, A. L. F., W. ford.
Pether, W. G., Bed
Partridge, W. J., way.
Price, E. V., Notti
Pitter, G. W. K., mayes.
Powell, M. H., B ham.
Phipps, A. S., Leic
Platt, W. T., Shaw
Payne, A. J., Caerp
Powell, E. G., Long
Paton, A. G. R., ville.
Plumtree, H. S., N ham.
Prangnell, C., Lond
Rendle, W. A., mouth.
Rufus, L. M., Sout
Ross, F. J., Blairg
Robertson, A. V., ness.
Roberts, A. G., Lo
Salt, G. W., Birm
Sharpe, A. L., Leic
Shaw, H. H., Live
Saise, A. J., Brist
Scholefield, G. H. ley.
Smith, G. J. S., St.
Saunders, V. C. L chester.
Seabright, J. E., ter.
Smith, J. A., Durh
Trower, R. W., Ne
Thompson, F. N. H borough.
Turner, H. V., Ken
Titley, P. E., War
Tozer, C. R., St. A
Usher, W., Ch Street.
Varley, H., Nelson
Venton, C. W., Ex
Willis, N., Newca Tyne.
Wrigley, F. H., Wi
Wolff, W. E., Torq
Willett, C. H. A. sham.
Whiteside, W. J., ham.
Wood, F. W., hampton.
Wightman, G. W nington.
Wallis, H. V. G., ampton.
Wiltshire, A. J., on-Trent.
Woolnough, C. Ipswich.
Wood, N. B., Derl
Wright, J. S., Lee
Walters, J., Londo
Williams, O. P. D
Yorath, F. G., Bu



The temple of Mars Ultor, erected by Augustus in 42 B.C., is certainly one of the finest survivals of the Augustan age, and is renowned for the almost unrivalled richness of its pillar capitals. The one here shown is unexcelled in the exquisite grace and dexterity of the carving.

Restrictions Governing City Development

Their Effect in the United States

By A. C. HOLLIDAY

(*Concluded from last issue, page 299.*)

HE advantages to be secured from skyscrapers should not be underestimated. These are evident ough from the fact that an enormous mber of skyscrapers have been built America with no small amount of cess. If these buildings are properly ced, not too close together or overdowing public places, they afford the st agreeable, healthy, and desirable ce quarters. Land values are greatly reased on account of the large amount floor space available, and the business a of the city remains convenient and npact by the intensive use of land. thetically, skyscrapers have their ims, and they have come to be rede as a distinctive type of American hitecture.

sadvantages of High Buildings

On the other hand we have innumere disadvantages to this excessive high lding system besides the ones of light, congestion, and fire already menned. The construction of very tall ldings has been supposed to bring an reased return, commensurate with the ue of the site, but this fallacy is proved en we consider that increased height olves increased cost of construction cubic foot of building, and the further rement of cost in operation and mainance of all the tenantable space. The lities of vertical construction, afforded the steel cage, have unduly hastened increase of certain properties and s with untold disadvantages to all surrounding land. With these conons intensive building cannot be an antage to estate values in general wever much a few may benefit.

The construction of a skyscraper idst poor surroundings sets a forced able value on its site, and this is mptly used as a basis of comparison for values of contiguous sites, on the asmption that they, too, can be improved ny equal extent. But they are really less value than before because their sible improvement is discounted by large access of rentable area in their nity. Some small gain may be made reason of the introduction of a large y of tenants into the district, but as n as not the latter are of different racter to the prior class of occupants, have little or no relation to the busis or purpose of the locality.

he effect of a town as a harmonious, nogeneous mass is not the result of efully-detailed elevational treatment buildings, but the effect produced in general silhouette, the focal vistas, the grouping of buildings. The laws armony, symmetry, variety, contrast, nce, and the like are necessarily foled as in minor architectural conceptions. n early town planning the church was dominant feature of the skyline, other dings were scaled accordingly; this ciple holds good still in the majority English and continental cities, but it is not applicable to the United States, where the skyline is strongly marked with commercial and advertisement buildings caused by the evolution of the skyscraper.

Unity gives the nucleus of the æsthetic principle to be aimed at in Civic development, the arrangement of parts by which the features of the town unrelated in their utilitarian functions are so placed as to become one organic whole, and not regarded as separate units framing an unco-ordinate conglomeration of buildings. The æsthetic effect of a street, boulevard, or avenue is determined, firstly, by its length and breadth, and, secondly, by its lining of buildings or trees; these may have either an individual or continuous treatment. In buildings where the height is greater than the width, the vertical line is best emphasized and generally treated as an individual unit, while in buildings where the length surpasses the height they are most suited to a horizontal treatment. Height is undoubtedly all-powerful in giving predominance and importance to any one feature. A tower and spire that will not compare in bulk may by height alone put the rest of the building in complete subordination.

Space Composition

The value of space is another important factor. A composition should give the impression of space, not merely a pleasing arrangement of objects agreeably disposed, but an arrangement that makes the total space immediately apprehended by the mind. As ordinarily understood, composition may mean an arrangement on a flat surface within a given area as would satisfy our feeling of symmetry, harmony, compactness, clearness, and looks well on paper when reduced to a pattern. Space composition, on the other hand, must give the effect of these dimensions, length, breadth, and height. Spaciousness does not convey the correct idea, for spacious means having amplitude, extent, roominess, whereas space composition depends for its success on a general apprehension and an agreeable relation of all the volumes to the whole.

In a city plan we have, simply and immediately conceived, a combination of units revealed through light and shade of spaces, of masses and of lines. These few elements form a core to the entire project, giving appearances which are related to human functions. Through the spaces we can conceive ourselves to move; the masses are capable of pressure and resistance, the lines, should we follow or describe them, might be our path or gesture.

Tall buildings with the effect of "top heaviness" and ill-proportioned spaces are found offensive, and a certain discomfort is experienced from their presence. They suggest the idea of instability collapse, restriction—these are only inward feelings, but they do exist. At the same time, the exhilarating effect of the campanile and spire must not be forgotten. We cannot, however, lay down fixed proportions for spaces and heights æsthetically, they are in the first place controlled by actual dimensions, but they are affected by a hundred considerations besides, which are rectified only by our æsthetic senses.

Need for Public Control

From the evidence already given, it seems obvious that there is a great need for public control over all building development. Unrestricted power to build to any height, over any proportion of the lot, for any desired use and in any part of a city, results in injury to business and estate interests, health, safety, and the general welfare of the community. With the past experience of the United States and a few isolated cases in this country we can do much to safeguard the future. The process has now gone far enough to make it plain to any observer that if it is permitted to continue until the district is uniformly built up with structures of extreme height the situation will become intolerable, and injury will be done both to public and private interests. Restrictions must be carefully devised so as not to interfere with existing property values; reasonableness of regulations will prove a mutual advantage to the property owner and satisfy the general public. Excessive height is not necessary to realize the maximum net return from the land. The large entrance hall required, elevators, stairs, and other services take up too much of the valuable space in such buildings.

When conditions of congestion and inadequate light prevail, it is clear that a reasonable restriction on height and court area if applied in the beginning would have been greatly to the advantage to health and comfort of thousands of office employees and all the owners concerned. Height restrictions should be framed with a view to seeing as much light, air, relief for congestion and safety from fire as is consistent with a proper regard for the most beneficial use of the land, and as is practical under existing conditions as to improvements and land values. These restrictions should be based on the theory that assuming that the entire district should be built up uniformly with buildings of a maximum height and extent allowed, the provision for light and air would be adequate, and the district as a whole would be appropriately improved. Various district restrictions should have in view the safeguarding of existing and future investments, and encourage an orderly building development, by considering the existing type and character of the district. Any system of building control would be defective unless in addition to the regulation of height, yards and courts, regulations must be imposed on the location of industries and of buildings designed for special purposes. Height limitations will not prevent deterioration of certain districts caused by the invasion of inappropriate industries and structures.

Returning to the classification of the different methods of controlling build-

ing heights, a few notes on the advantages and disadvantages of each system seem desirable in this conclusion.

(1) The flat limit, if low, gives a relatively uniform architectural effect, but does not permit a tower building, which has both architectural and practical value, nor does it consider the width of the street, though it bears an imperfect relation to congestion over large areas.

(2) Limit to height proportioned to width of street is in effect in Cleveland, St. Louis, Paris, and many German cities. This covers the factor of light and air precisely, again does not permit tower buildings, but encourages architectural uniformity along the street.

(3) The controlling of height by a sloping line from the opposite side of the street takes into account light and air only, and is not adapted to effective architectural treatment. This permits additional height back from the street and is now advocated in Toronto; this method is liable in this case to increase congestion.

(4) Height controlled by area of cross sections or elevations may meet congestion in part, but is apt to be confusing.

(5) Limit by cubage, that is, total volume, covers the factors of congestion over large areas only, and does not meet the requirement of light and air.

(6) Cubage proportioned to the width of the street covers the factor of congestion and permits effective architectural treatment, but is open to the same objection as the simple cubage method in the matter of light and air.

Mr. Arthur C. Comey, of the American Society of Landscape Architects, gave a suitable building height regulation in a paper at the Fourth National Conference on City Planning at Boston, Massachusetts, 1912. This regulation is a continuation of the second and last of these methods. Cubage (the factor of congestion) and the average height of the front elevation (and therefore the factor of light and air) will vary directly as the width of the street, and the tower building would be encouraged without the abuse of its unrestricted adoption. The following has been worked out for a concrete case for a city of intermediate size, with rather uniformly broad streets, representing quite ideal conditions.

"A building may occupy its entire lot to a height not exceeding the width of the principal street into which it faces, and not exceeding in any case 100 ft. Above this height the cubage of the building shall not exceed one-fourth of such height multiplied by the area of the lot."

Details of Science and Technical Buildings

In small or elementary science buildings separate provision is seldom made for laboratories for the study of the nature of the laws of vision and light; but, nevertheless, it is desirable that fully-equipped buildings should comprise a chamber similar to that illustrated on page 320, which can be effectively darkened at a moment's notice. In many of the simpler experiments it will be found that a lecture hall or physics laborato can be sufficiently darkened by the u of ordinary light-absorbing blinds, b where complete darkness is required ensure accuracy in the result of expe ments, greater precautions must be tak for the exclusion of light, and this c only be done in a chamber special designed for the purpose.

The doors of the optical laboratory a made light-tight by the insertion of thi felt in the rebated door frames; the doo should, of course, be provided wi adequate bolts or locks to keep out t casual intruder. The windows are pr vided with special light-proof spri blinds that run up and down tight wi fixed top and bottom in black-paint sash cases (*see* Detail). The point of ent of the blind into the cases is protected two pieces of thick felt, and the botto edge of the blind, which consists of metal strip, fits into a felt-lined s formed in the window-sill, where it retained in position by a steel spri thumb-bit. On releasing the spring t blind flies to the top of the window.

The developing-room is fitted wi similar devices to exclude the light, a has, in addition, a small sink and dra ing board, preferably of teak, wi ½-in. channels formed on its upper su face. Ample shelf accommodation shou also be provided.

This drawing, which has been specia prepared for THE ARCHITECTS' JOURNAL Messrs. A. W. S. and Kenneth M. B. Cro forms the seventh of the series of deta of science and technical buildings.

The Dickins and Jones Building, Regent Street: Progress Photograph No.

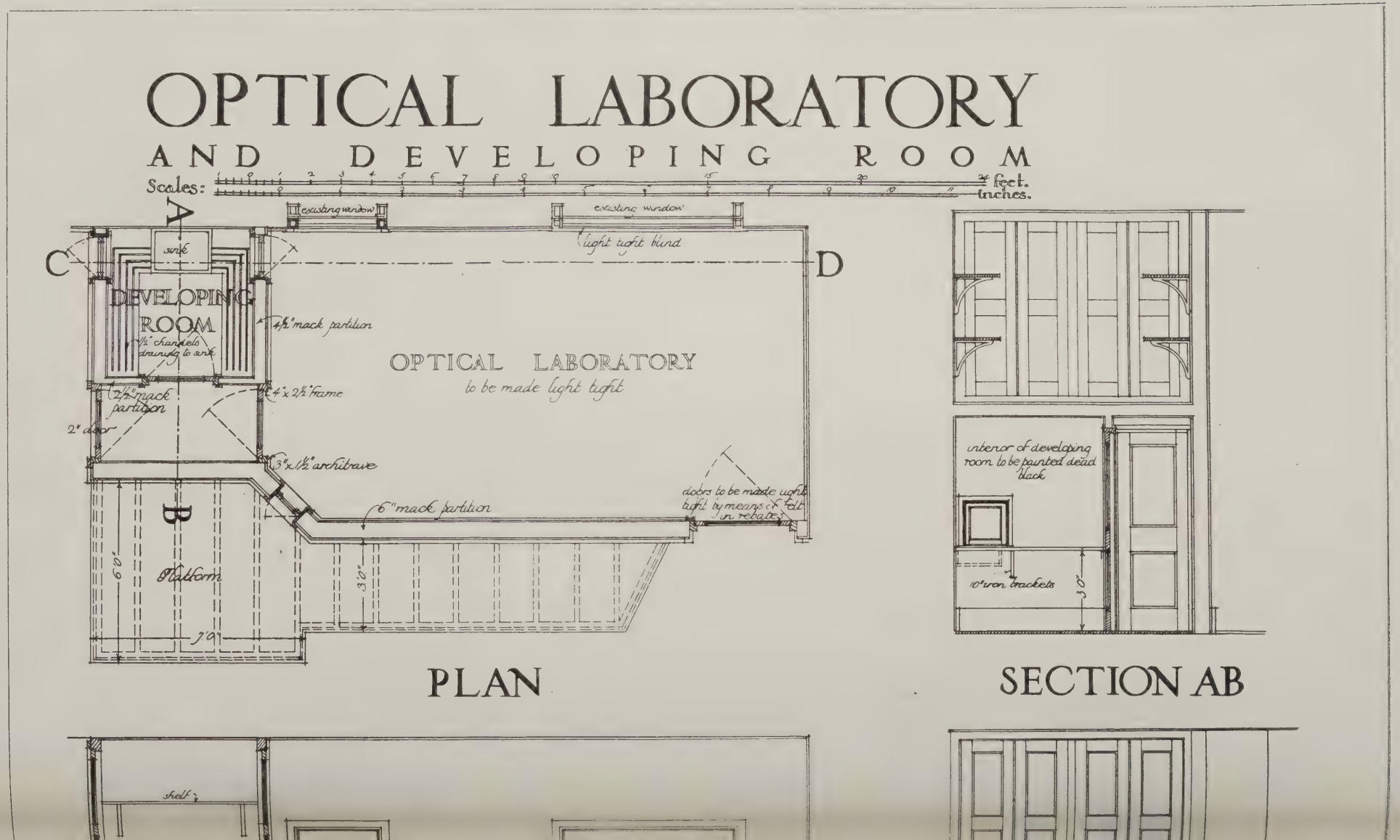


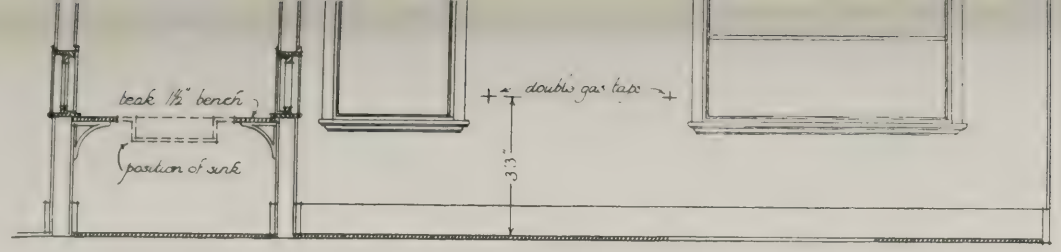
Higgs & Hill, Ltd., Builders

This photograph, taken by courteous permission of Messrs. Henry Tanner, FF.R.I.B.A., shows the condition of the work on August 31, 1921. The steelwork to the front section has now been sufficiently completed to allow of the erection of the derrick cranes for stone fixing, and the Portland stone front has been raised to the first-floor cornice level. 2,500 square yards of "Kleine" flooring have been put in. Earlier progress photographs were given in our issues for April 13 and 20, May 18, June 22, July 20, and August 17.

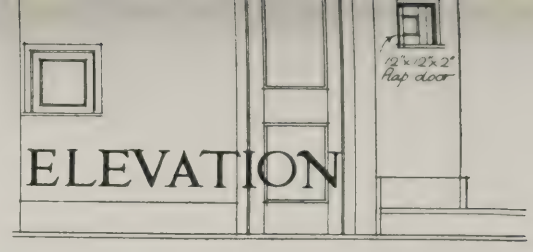
Practical Notes for Architectural Draughtsmen (Series II) Technical Schools and Science Buildings
7.—Optical Laboratory and Developing Room

A. W. S. Cross, M.A., F.R.I.B.A., and Kenneth M. B. Cross, M.A., Architects

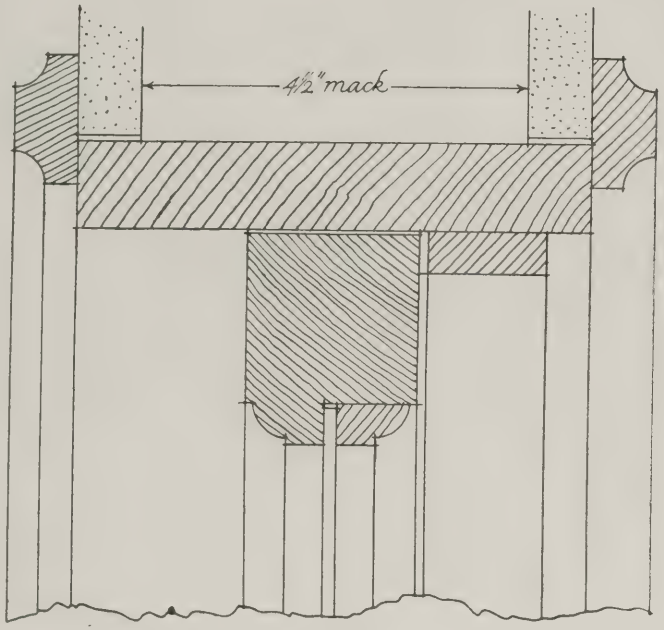




SECTION CD

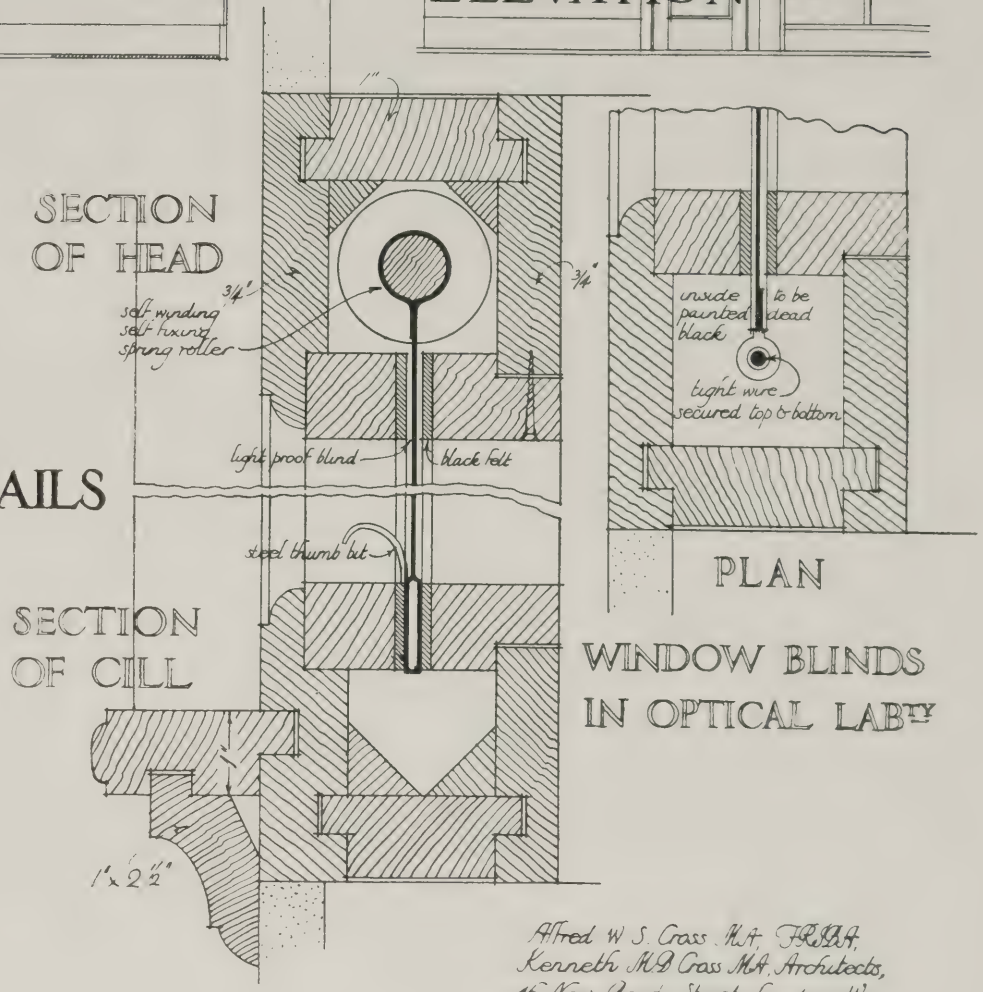


ELEVATION



HEAD OF WINDOW
TO DEVELOPING RM.

DETAILS



WINDOW BLINDS
IN OPTICAL LABTY

Alfred W S. Cross M.A. F.R.I.B.A.
Kenneth M.B. Cross M.A. Architects,
46 New Bond Street. London. W.

Now that designs for science buildings are in extraordinary demand, this illustration is valuable as showing the construction of a typical optical laboratory. Light is excluded by inserting felt in the rebates of the door frames, and fitting specially made spring blinds to the window sashes. Further notes on the construction are given on page 318.

Correspondence

w to Educate the Public

the Editors of THE ARCHITECTS' JOURNAL.

s,—We are deeply interested in the pondence which is appearing in paper on the question of How to te the Public.

a business concern, it may be felt we ought not to venture upon a elative to this subject, but as we rrying out a carefully thought-out ional campaign through the pages technical press, we trust that our e interest in the subject is clearly strated.

believe that the best way of educat- e public, and of creating the right t in architecture, is to bring pro- tly before the layman the fact that autiful and inspiring architecture has been bequeathed from preceding tions is the work of an individual— n, an artist, an architect. Fine cture is generally conceived as ing to a nation; the genius that it is forgotten; the name of the ct is entirely unknown.

ems to us that by making clear the at is owed to the Masters of Archi- of bygone ages, and by describing e measure the work and the re- ilities of modern architects in l, and the benefits they confer upon ity and civilization, much may be o create a deeper and more intelli- terest.

ibly there is no one royal road to ucation of the public in architec- natters. Every genuine effort will however, and we venture to urge finite efforts should be made rather at theories should be propounded. in this spirit that we have devoted ourths of our advertisement pages finite educational campaign. We in the announcements the actual he architect does, and show the at humanity owes to him.

itects are asked to help the dis- on of this information among their and they can do so by sending us and addresses, so that we may h copies of the papers to interested This is our small individual a great educational work, and that have some beneficial results we have ample testimony.

ARCHIBALD D. DAWNAY AND SONS, LTD.

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the Editors of THE ARCHITECTS' JOURNAL.

—In adding my note of admiration chorus of approval that has Mr. Welford's article on "How to e the Public," may I make a few nts, which, though oft repeated, believe, to the point. One of iminary sentences runs thus: "In o be of any enduring value the not only of the converted and mi-converted, but of the indifferent e awakened and encouraged . . . hance is there of rousing the in- f the public?"

Welford seems to imply that the st" of the public is synonymous "Education" of the public. That ot the case may be clearly seen. In , for instance, the public interest is intense, but its artistic education and taste absolutely nil. Therefore I say that, though its architectural taste is execrable, and its architectural education nil, the public, as a matter of fact, has got an immense interest in architecture, in houses and homes especially, but also in all sorts of public buildings like cathedrals and cinemas and public-houses. But the public is not, and never will be, interested or educated in orders, entablatures, modules, cyma reversas, and all the jargon that makes up the so-called "Education" of the architect. Quite naturally, therefore, the public is not interested in the architect, and that is what we are really complaining about. Architecture is by no means ignored, but the architect is, utterly and superbly; and it is our fault, not the public's. We have mixed ourselves up with cyma reversas instead of getting a name for creating gloriously intimate homes, bewitchingly seductive cinemas, and priceless public-houses. If to-day we could take the opportunity of scrapping our dead Classic and Gothic paraphernalia, and get at the same time a conception of architecture as something beyond the mere composing of a façade or plan, we should be on the high road to the new age we are all looking for. Before we try to educate the public we might make sure of our own position; and if Mr. Welford thinks of writing again, I would suggest that, as a sequel to his last article, he contributed a page on "How to Educate the Architect."

MODERNIST.

The White Lead Controversy

To the Editors of THE ARCHITECTS' JOURNAL.

SIRS,—May I be allowed to offer some remarks on the above subject, which necessarily interests architects and builders? You will be aware that a committee to consider the whole subject of lead poisoning among painters was appointed in 1911, and that that committee recommended that the use, sale, and manufacture of white lead should be prohibited. You will also be aware that a new committee has now been appointed to re-examine, more especially in the light of the further information which has become available since the inquiries of the Departmental Committee appointed in 1911, the question of the danger from the use of lead paints to workers in the painting trades, and the comparative efficiency, and cause of the effect of the ill-health of the workers of paints containing lead and leadless paints respectively. The committee is to advise whether any modification of the findings of the committee of 1911 has become necessary.

This appointing of a new committee, whilst very unusual, opens up the whole question again, and particularly extends an invitation to all interested in the questions: (1) whether lead poisoning occurs frequently under existing conditions; (2) whether, if suitable safeguards are taken, this danger will be substantially removed; (3) whether leadless paints, from the point of view of cost and durability, can be used in the place of white lead.

The subject has been discussed in the past at very great length, and the claims of those holding very decided views in favour of white lead prohibition or the reverse have been greatly exaggerated. I should like to be permitted to deal with the subject in an impartial manner, and to point out some facts which are not generally understood, or at least are frequently overlooked. I shall not touch now upon the question of the extent of lead poisoning. Statistics on the subject are very incomplete, for the reason that when cases occur among painters it is not necessary for the medical man to notify the fact. When cases occur in lead factories, however, such notification is compulsory. Those who desire to look into this matter closely should read the following books: "Diseases of Occupation," by Dr. T. Oliver (Methuen & Co.); "Industrial Poisoning," by J. Rambousek, translated and edited by Dr. T. M. Legge (Edwin Arnold); and "Lead Poisoning and Lead Absorption," by Drs. Legge and Goadsby (Edwin Arnold).

Recently it has been shown that turpentine generally has an injurious effect upon painters who use it, and it is claimed that medical men may have imagined that white lead was responsible for the illness. It is, however, difficult to suppose that a medical practitioner should make this mistake. The fact should not be forgotten that cases of white lead poisoning are scheduled as accidents in the Workmen's Compensation Act. Whether or no genuine cases of plumbism are many or few, one would naturally desire that if practicable they should be done away with all together. The question, therefore, resolves itself into this: Are there non-poisonous pigments which can take the place of white lead, the conditions being that they shall be equally durable with and cost no more than white lead? I emphatically state that there are many such pigments. If the supply of white lead wholly ceased there would still be good paints to be used in its stead.

Large quantities of leadless paints are in constant use. For example, oxide of iron is largely employed in the painting of bridges and other iron structures which are exposed to the weather, and with complete success. Graphite paints, which are also entirely free from lead, are used for the same purpose. Ochres, Siennas, Indian red, Venetian red, and the earth colours in general, including Vandyke brown, umber, etc., are all used to a very considerable extent, and are extremely durable and relatively cheaper than white lead. They may be mixed with any pigment, white or coloured, whenever required.

We come now to consideration of non-poisonous whites, of which there are three, namely, zinc oxide, lithopone, and antimony oxide. The last named is of comparatively recent production. Taking zinc oxide first, I would point out that it may be mixed with any colour or with any other pigment without being affected, or itself affecting the combination. It yields purer tints than white lead, which, by the by, cannot be used with colours containing sulphur, such, for example,

as ultramarine or vermilion, cadmium yellow, etc.

After giving a lecture some years ago on the subject of leadless paints before an architects' association, one of the audience said, "You have told us all about the virtues of zinc oxide, now tell us something about its shortcomings." The answer I gave dealt with the following points—Zinc oxide is claimed to be different in "body" or opacity. If white lead and zinc oxide are both mixed with the necessary turpentine and linseed oil to render them fit for application by means of a brush, and they are painted out side by side, the first coat of the lead will be found to cover better than the zinc, but the latter will spread or cover at least 25 per cent. more surface. A second coat having been given, it will be found to be about equal in body, and on the third coat being applied, there will be found no difference, or if there is any, it will be in favour of zinc. If four coats are given on new work the advantage of zinc oxide will be even more sharply defined.

The next question put by one of the audience was this: "If zinc oxide possesses the virtues you attribute to it, why is it that white lead has remained in favour so long among painters?" This is not so difficult a question to answer as one might imagine. Painters are proverbially a conservative class, and are loath to use materials with which they are not well acquainted, particularly when the method of mixing requires alteration. If zinc is mixed as though it were lead, failure is inevitable.

Now, white lead is not much used if a pure white colour is required; white enamel is usually employed, and this, by the by, is made wholly from zinc oxide added to oil and varnish. Most light paints are tinted, and the reader who is sufficiently interested should make a second experiment and paint out white lead and zinc oxide respectively, each being tinted with the same quantity of colour, which, it need hardly be said, should be added when ground in oil and not dry.

As already remarked, zinc paints must not be mixed in the same way as white lead. The usual method of mixing the latter is to use linseed oil and turpentine, and then to add patent dryers in paste form in the proportion of about 14 lb. to the cwt. Such dryers must never be used with zinc oxide. Care must be taken not to use too much turpentine. The proper way to mix zinc oxide, and one which will always bring success, is to use refined boiled oil (pale) and zinc dryers, if such are required, while for the last coat for outside work, 25 per cent. of the thinners should consist of a good pale mixing varnish. If these directions are followed, the paint will stand up exceedingly well, and as well as or better than white lead mixed in the ordinary way.

We come now to a consideration of the second important leadless pigment, namely, lithopone. This was originally introduced some thirty or more years ago by Mr. John B. Orr, of Widnes, Lancs., who informed me in a recent letter that the output of his works alone is about 30,000 tons per year. Lithopone is also made at Charlton and other places in this country in large quantities. It is the base of most of the popular water paints, and also of the more recently introduced flat wall finishes. As a pigment used by itself, or mixed with the necessary colouring matter, it possesses a great advantage over white lead. In the first place it is much cheaper, and in the second it covers from 25 per cent. to 30 per cent. more surface, weight for weight. It is quite durable when used for inside work, but cannot be used successfully on outside work exposed to the weather.

Antimony oxide possesses an excellent body, but as it has only recently been introduced, I may dismiss it with the statement that it probably has a very bright future.

As to the cost of lead and leadless paints. The price of course fluctuates from time to time. At the time of writing white lead is quoted at 45s. per cwt., zinc oxide 36s. per cwt., lithopone 28s. per cwt., all being dry. A little calculation will demonstrate the very considerable saving that is effected by using leadless white paints.

A strong effort has been made to show that in the event of the use of white lead being prohibited, we should be compelled to buy all our supplies from abroad, but this is not the case. Zinc oxide is made in England, probably at the present time, to the extent of about 5,000 tons per year. I have already given the figures as to lithopone. No doubt quantities of both materials will be imported from abroad, but I venture the assertion that this fact is distinctly favourable to the interests of architects, property owners, and painters, because it will tend to keep prices from being unduly inflated.

I have found by actual experience that if from 25 per cent. to 33 per cent. of zinc oxide is added to white lead, there is a great improvement of durability, and it is a fact worthy of remark that manufacturers of the highest reputation who produce ready-mixed paints use such an admixture, and, being aware of the improvement effected, state the fact on their packages.

It has been pointed out that much of the danger of white lead poisoning to painters arises from the process of rubbing down painted work by means of pumice-stone and sandpaper, owing to the dust which is thereby created. This is undoubtedly true. Such dust is very likely to be inhaled, and plumbism may follow. It has been many times claimed that if dry rubbing down of painted work is prohibited, the danger will to a great extent be removed. At first sight this argument appears to be a fair one. It is, however, one which is most misleading, because even if dry rubbing down were prohibited by law, the provision could not be enforced. To make such a law operative it would be necessary to have an inspector on every job of painting—an obvious impossibility. If sufficient inspectors were appointed to visit every job, say every day, it is certain that the workmen would resort to the dry rubbing down as soon as the inspector's back was turned. They would rather run the risk of poisoning than be subjected to irksome regulations.

The "wet" operation of rubbing down would consist of rubbing down old painted work with pumice-stone and water—which, by the by, is already done—and also moistening the sandpaper with turpentine. The use of mineral oil has been suggested for the purpose, but this is an absurdity, because such an oil does not dry, and it would have to be rem before the new paint could be proc with. If by "mineral oil" is mea light distillate, such as naphtha or zine, the answer is that both v evaporate so quickly as to render frequent moistening necessary. Tu tine itself is of course volatile, and same objection to its use, although lesser degree, would apply. If one d to ascertain the rate at which turpe evaporates, a simple experiment satisfy him. Pour on a piece of writing paper a single drop of pure pentine. This will leave a mark will disappear in a few minutes, indic that the turpentine is probably pure a greasy mark is left on the pap shows either that the turpentir adulterated with mineral oil, or tha not turpentine at all.

The claim that turpentine c poisoning among painters has already referred to, and it will be clear th turpentine is used to moisten sand and so keep down the dust of white the operative will stand the chan being poisoned by the turpentine, i the statement can be substantiated.

Whatever the findings of the new mittee may be, it is to be hoped th will at least recommend that illness lead poisoning among painters be no by the medical man attending, and it will prohibit the use of white lea interior work.

ARTHUR SEYMOUR JENNIN
Editor of "The Decora

Building Guilds

To the Editors of THE ARCHITECT JOURNAL.

SIRS,—It is a real but rare pleasu see some notes in praise of the system—in an architects' paper, too is the astonishing thing, and appa by an architect. Can it be true, or I in a moment of misguided enthu read into the remarks of Mr. Ke Cross, in your issue of August 31, thing that is not really there? If any has been written in praise before architects' paper it has been my unl experience to miss it, though I carefully scanned them for that pu since the building guilds started. I read plenty of adverse criticism, ple "damning with faint praise," but I c remember having seen an apprec in an architects' paper until now.

Mr. Cross states: "For the ideals genuine guildsman there can be no but praise from those unprejudic antiquated grooves of thought o biassed by class feeling."

I hardly know which I enjoyed m the praise for the guildsman, or the blow for those living in prejudic wonder if by any chance he architects?

G. LL. MOR

Publications Receiv

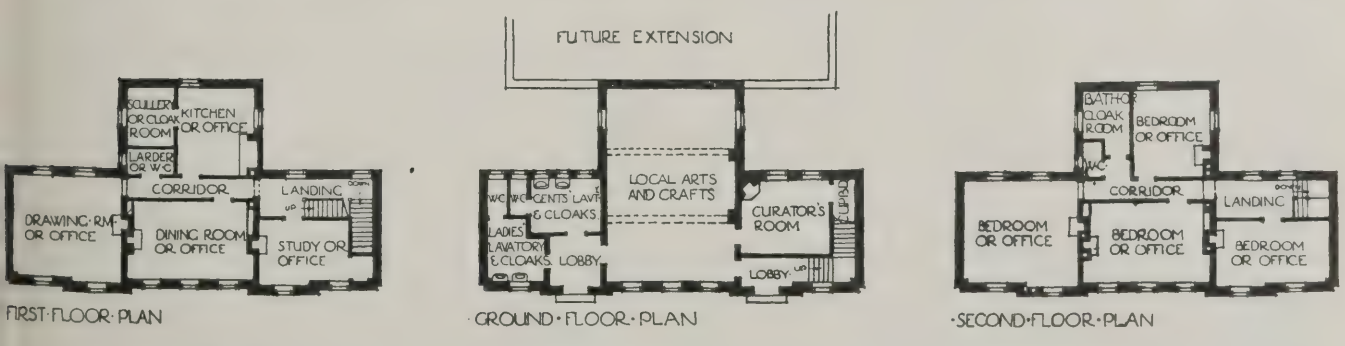
"Some Liverpool Streets and ings in 1921." By C. H. Reilly, O M.A., F.R.I.B.A., Professor of Arc ture, University of Liverpool. 3s. 6d. "Liverpool Daily Post and cury," Liverpool.

"Sculpture of To-day," Vol. I Kineton Parkes. Price 25s. net. man and Hall, 11 Henrietta Street, C Garden, W.C.2.

Current Architecture. III.—The Museum, Letchworth

Barry Parker, F.R.I.B.A., M.T.P.I., Architect





FIRST·FLOOR·PLAN GROUND·FLOOR·PLAN ·SECOND·FLOOR·PLAN

In this elevation Mr. Barry Parker has secured a very pleasant effect by the use of simple elements—Portland stone dressings and white sash windows. The stone bays above the doorways serve as an agreeable contrast to the brickwork, while the urns that surmount the coping are interesting not only for their graceful shape, but for the diversity they lend. The semicircular door-hoods serve as excellent foils to the general perpendicularity of the lines. The building, which is 30 ft. wide, has 11 in. cavity walls, and a plaster soffit to the eaves.

The Flint Industry of Brandon

By J. C. BRISTOW-NOBLE

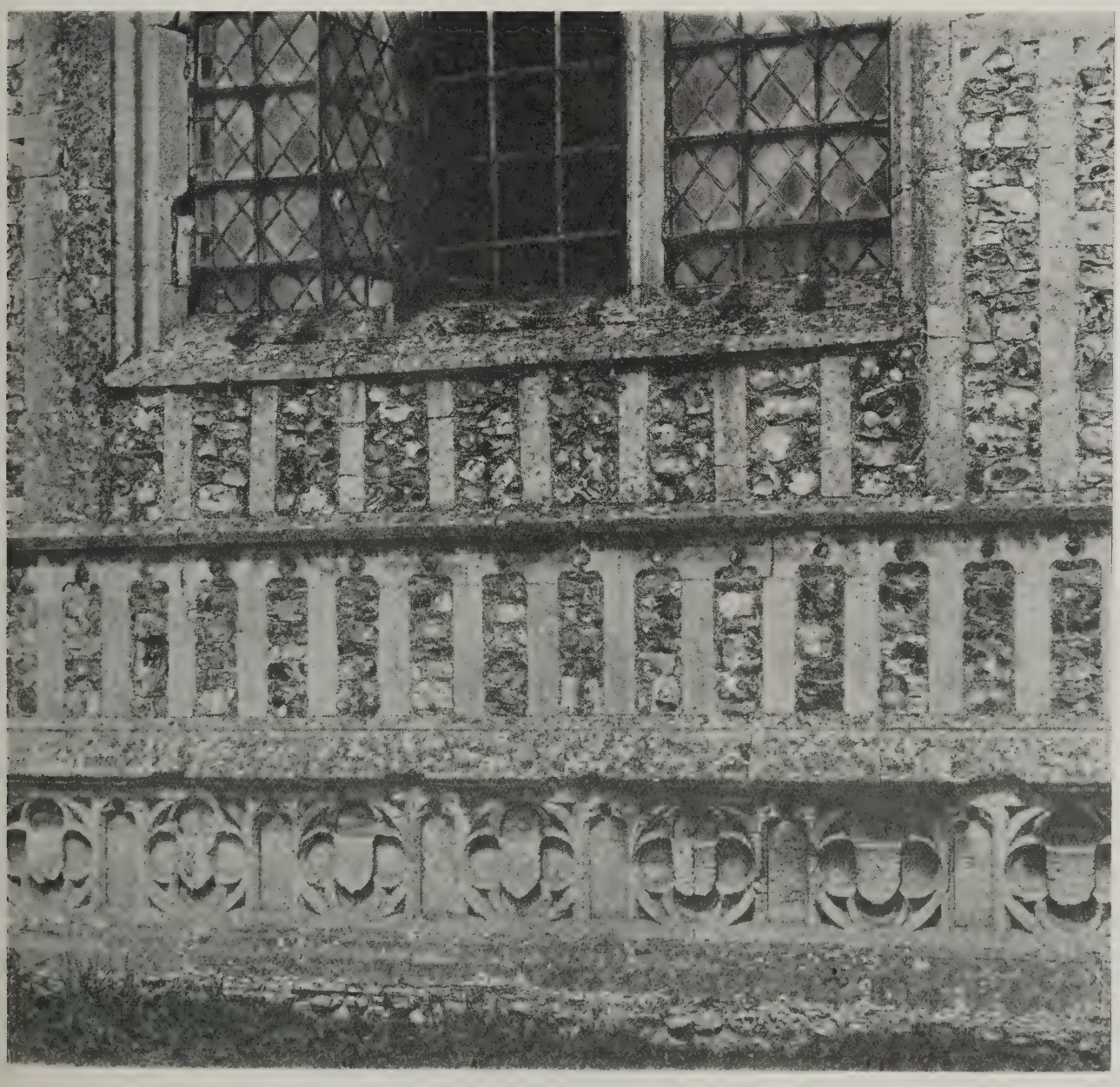
THERE are many old industries in this country, but it is to be doubted whether there is one older than the t industry of the little Suffolk town of andon. For hundreds of years, indeed far back as we can trace, Brandon has en famous for its flint industry, because the excellent flint in the district. e are told that in the days when flint truments were in general use, Bran-n's flint arrow heads, axes, hammers, ugh breasts, and so forth, were sought every one who liked a good tool, and t considerable was the prosperity of town.

Then, by degrees, as the centuries ed by, and metals began to replace ne, this branch of the business fell ay. But matches had not yet been ught of, much less invented; so, nough there was no further demand for t instruments, the people were kept sy manufacturing "strike-a-lights." en, at length, there came the dis-ery of gunpowder, and later the inven-tion of cannon, and, still later, the shot-gun and rifle, and we see Brandon quickly enjoying as great a fame for its gun-flints as for its flint instruments in the past ages.

It is a fraction of this part of the industry that still survives, and what is as interesting, the few men who are still engaged in the industry are true descendants of the flint workers of 2,000 years ago, and they can actually trace back their descent 500 years. Further, their methods of working and preparing and shaping the flint are as primitive as those of their ancestors. For many years now the flint for the industry has been quarried at Lingheath, a large tract of common land just outside the town. There was a time, however, when so much flint was required that pits were being worked almost everywhere in the vicinity.

To-day Lingheath, like many similar tracts of land in the district, presents a strange appearance. It is dotted with thousands of mounds of chalk, grey and white, which the miners have brought to the surface. Any of the inhabitants of Brandon may quarry for flint on this heath, but they must respect two simple rules: not more than two pits must be opened at a time, and, when exhausted, the pits must be filled in. There are now only three men, a family named Dyer, engaged for a livelihood in this branch of the business. Their tools are few: they are a pick, a short-handled shovel, a crow-bar, and a bucket.

They grub down straight into the ground until they come to the flint, which is reached at a depth of about thirty feet, and then branch out in a circle. As they work into the ground, they cut steps and stages in the sides of the pits by which to ascend and descend, and the earth, chalk, and flints removed are carried to the surface on their heads in the small bucket with which each provides himself. A more primitive method of mining is only to be found in some of the remote places of our Dominions. Deeper than fifty



LADY CHAPEL, LONG MELFORD, SUFFOLK: DETAIL OF FLINTWORK.

feet the men cannot go, for below that depth there is water, and not as yet have they devised means of dealing with this obstacle. Yet the best flint of all lies in this water.

Four layers or "seases" of flint are found. There is the "topstone," the "wallstone," the "uppercrust," and the "floorstone." The flint in the water is called the "blackstone." There is darkness at the bottom of the shafts, and the men work by the light of candles, which they fix in pieces of chalk. They have some quaint expressions. They speak of the quarrying as "bubber hutching," and of a pit sunk on the slant as "bubber hutching on the sosh," and of a one horse load of flints as a "jag" of flints.

The knappers, that is, the gunflint makers, live in different parts of the town, and, as has been the custom for the last century, carry on the industry in sheds near their cottages.

Field, one of the knappers, explains that care has to be exercised with regard to the flint. The stone must not be left lying about too long, or it changes colour and becomes dry and unworkable. Again, in damp weather it is apt to become greasy, in which state it is also unworkable.

Firstly, the knappers quarter the flints, that is, break them into sections about six inches thick, with a seven pound hammer. Gently they tap each stone, and from the ring that follows, judge where to strike to bring about the separation. Quite a soft blow on the correct spot will quarter the flints, although the hardest blows elsewhere, even with a sledge-hammer, would produce small results.

Next comes the flaking. This is done with a hammer, oblong in shape, that was introduced into this country by French prisoners during the Napoleonic wars. Previous to this a round-faced hammer had been used. Several French terms linger from this period. For instance, the finished gunflints are sold at so much "per mille," and some of them are described as "pierres à feu," and "fusee flints." To flake, the knapper holds the stone in his left hand and against his knee, on which a leather is worn for protection, and at an angle, and taps away at an extraordinary rate. At each blow a flake, that is, a long, narrow strip of flint, about six inches long and one wide, falls off.

Although to the person unskilled in the industry one flake is the same as another, in reality all are not of use for igniting. There are good and bad flakes, and far more of the latter than of the former. The knapper can detect the good ones at a glance, and every few minutes or so, he lays down his hammer and throws these into tins, while the bad ones go to swell the heap of chips outside the workshop door.

Years ago there were thousands of tons of these chips in Brandon's back yards, the accumulation of decades. Then suddenly there sprang up a demand for this waste material for foundations for concrete, for road paving, and for pottery making, and the heaps gradually dwindled

Another branch of the industry is the facing of flint for churches and other buildings, In the great days of the industry the knappers would earn as much as £10 each week; but nowadays they regard themselves fortunate if they make a clear £3 a week each.

The present number of knappers is under twenty, and most are middle-aged men. Few live to an old age, because, constantly inhaling minute particles of flint, an irritation is set up in the lungs, which in time brings about a form of consumption. The men have always a warm welcome for visitors to the little town, and gladly show them round.

Design and Crafts at Whitechapel

The strangely powerful hold of the Arts and Crafts movement on certain contemporary English artists is very much in evidence at the exhibition of design and crafts now being held at the Whitechapel Art Gallery.

Without condemning a movement which, thirty or forty years ago, more than justified its existence, one is yet inclined nowadays to be rather critical of its new manifestations, because the products shown have been observed to be conceived either in a spirit so reactionary as to violate the true principles of craftsmanship, or else to be slavish replicas of former designs. And neither way is concinnous. It grieves us to say that to a modern eye or mind most of the exhibits shown here seem to belong to a period of desuetude. The wraps and shawls, curtains and hangings, are undoubtedly the most satisfactory exhibits. Most of the dyes used are, indeed, very beautiful; fine shades of green made o fustic and logwood, of red extracted fro madder, blue from logwood, and crimso derived from ground cochineal are hap pily blended, and the spinning proces made quite clear by various highl skilled ladies who demonstrate thei craft at the spinning-wheel. Others d so on behalf of the arts of pottery o jewel-setting. Whoever dislikes the in human and supercilious finish and ap palling prices of West-End jewels—ring pendants, or brooches—had better stud similar articles here. Miss Pope's jewel mostly set in chased silver, are reall extraordinarily good, and the price aske more than moderate; a beautiful ring ca be bought for a guinea. Pendants an necklaces, made of tetrahedral crystal or uncommon and attractive stones, hav settings of crispated shapes of fine effects The leather work looks technically effi cient, but its designs are decidedl *démodés*.

But the chief attraction lies in the ver fine glazed tiles by W. de Morgan. Thes range from patterns of strictly naturalisti elements, as for the Duke of Bedford, t more geometrical examples, such as th 6 in. tiles divided into nine or sixtee squares, each fitted with a flower motiv in one colour. Beside his own designs W. de Morgan has carried out in a bol spirit designs by Halsey Ricardo an William Morris, but we particularly com mend to the attention of all a beautifu 8 in. tile of Mongolian pattern in blue an purple, whose rhythm, both of line an colour, could hardly be excelled. Few i



LARGE ROUGH STONES FROM WHICH FLINTS ARE CHIPPED.



A BRANDON WORKER "FLINT-KNAPPING."

ers, these tiles alone are well worth it to Whitechapel.

. A. Knox, the founder of the Knox of Design and Crafts, has one hun- of his water-colours on view in the gallery. Mr. George Clausen, R.A., opened the exhibition last week, wed encomiastic blessings upon , and they deserve praise, for they ransparently honest, and have the ne flavour of the open air in which were painted. The whole upper y is hemmed in with the profuse non-committal works of the Toynbee Club. To paraphrase old Massinger—

are no forced expressions, no rack'd orts,
Babel compositions to amaze the tured onlooker,
bscure touches that may compel ush from a chaste maid . . .
o be frank, this Toynbee Art is safe l, on the whole, pathetic stuff . . .

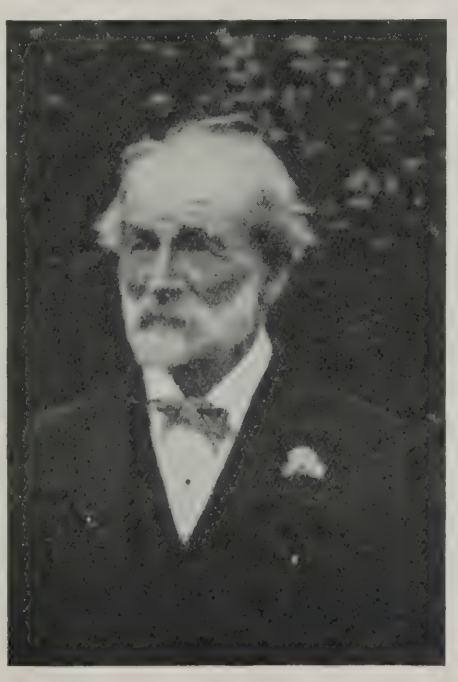
G. HOLT.

Sir Lawrence Alma-Tadema's House Sold

e residence of the late Sir Lawrence -Tadema, R.A., has been sold to a inent collector who has bought all xtures essential to the maintenance e atmosphere of this treasure-house, ding the famous Dutch room, for than £25,000. Sir Lawrence Alma-ma, on taking over the house, began quire *objets d'art* from every part of orld, and transformed it into one of ost wonderful homes ever possessed n artist.

The Late Mr. G. S. Aitken

It is with deep regret that we record the death of Mr. George Shaw Aitken, the founder and first President of the Edinburgh Architectural Association. Mr. Aitken was the son of Scottish parents, and was born in London in 1836. After the death of his father the family returned to Edinburgh, where Mr. Aitken became pupil to Messrs. Piddie and Kinnear, to whom he was indebted for training in



THE LATE MR. G. S. AITKEN.

Classic, Pointed, and Scottish Baronial architecture. The Edinburgh Architectural Association, which he founded in 1858, celebrate its jubilee in 1908.

Leaving Edinburgh Mr. Aitken entered successively the offices of Mr. Charles Wilson, of Glasgow, Messrs. Lockwood and Marvan, of Bradford, and Mr. Alfred Waterhouse, who, some time before, had been appointed architect of the Manchester Assize Courts. He was in 1860, along with Alfred Darbyshire and Richard Knill Freeman, joint founder of the Manchester Architectural Association and its first President. A little later the present Manchester Society of Architects was formed.

In 1873 he entered into partnership with Mr. James Maclaren, of Dundee, and afterwards carried on practice alone in that city in the erections of Ryehill Church, Dundee; Queen Street Church, Broughty Ferry; and the mansion houses of "Craiggowan," "Ballinard," "Tircarra," "Ethelstone," and "Corona." He was also engaged in the reconstruction of the Bank of Scotland and the North of Scotland Bank, Dundee; extensions to the mansion houses of Messrs. David and Robert Duke, Brechin; the erection of the Y.M.C.A. halls in that town, and various other works.

While in Dundee Mr. Aitken submitted designs for the Glasgow Municipal Buildings, and was one of the ten architects chosen by the assessor, Mr. Charles Barry, to prepare the final competitive designs, Mr. William Young being the selected architect. Subsequently Mr. Aitken returned to Edinburgh, where he was engaged in extensions to St. Catherine's and Grace Mount mansion houses at Liberton, and the restoration of the interesting old Edinburgh house known as "Lady Stairs" for the Earl of Rosebery.

Mr. Aitken had undertaken much literary work, and lectured in Edinburgh, Glasgow, Newcastle, and Dundee. Several of his lectures have been published in the transactions of the Royal Institute of British Architects, the transactions of the Edinburgh Architectural Association, and in professional journals. He was also the author and illustrator of a work on the three Scottish abbeys of Arbroath, Balmerino, and Lindores, and collaborated with Professor Patrick Geddes in his work "A Study in City Development."

Appointed lecturer on the History of Architecture at the Heriot-Watt College in 1890, he delivered a course of fifty lectures there, and he has been an exhibitor of water-colour drawings at various art galleries, many of his pictures being in the hands of private collectors.

He was much gratified that his history of the Architectural Association was typed, and several copies were bound, two of them being placed in the archives of the society. One, handsomely bound, was given to himself.

Mr. Aitken was buried in Liberton Cemetery, in a southern suburb of Edinburgh, and amongst those present were: Messrs. Oldrieve, President of the Association; Walker, Secretary; Washington Browne, Henry F. Kerr, R. Darling Ker, R. Cochrane, James Cochrane, Kemp, Walker, Cochrane, Arnold, and Dr. Thomas Ross.

Mr. Aitken's history of the Edinburgh Architectural Association was reviewed in our issue for May 25.

Competitions Open

"The Daily Mail" Labour-saving House Competition.

"The Daily Mail" offers £500 in prizes to architects for ideas and designs for labour-saving houses. Prizes of £300, £125, and £75 are offered for the best designs for a labour-saving house for a professional class family, who would occupy a house costing £1,000 to £1,200 at pre-war rates of building, and which would now cost anything from £2,500. A house will be erected at "The Daily Mail" Model Village, Welwyn Garden City, Herts, to the designs of the architect winning the first prize of £300, and a model of this design will be shown at the Ideal Homes Exhibition at Olympia, March 1–25, 1922. The general points upon which this competition will be judged are :—

1. Convenience of the plan itself from the labour-saving point of view.

2. The merit of individual labour-saving suggestions incorporated in the house.

3. The economy with which the idea is carried out.

4. The architectural appearance of the exterior.

"The Daily Mail" has issued a booklet giving the conditions in full.

Auckland War Memorial and Museum Building.

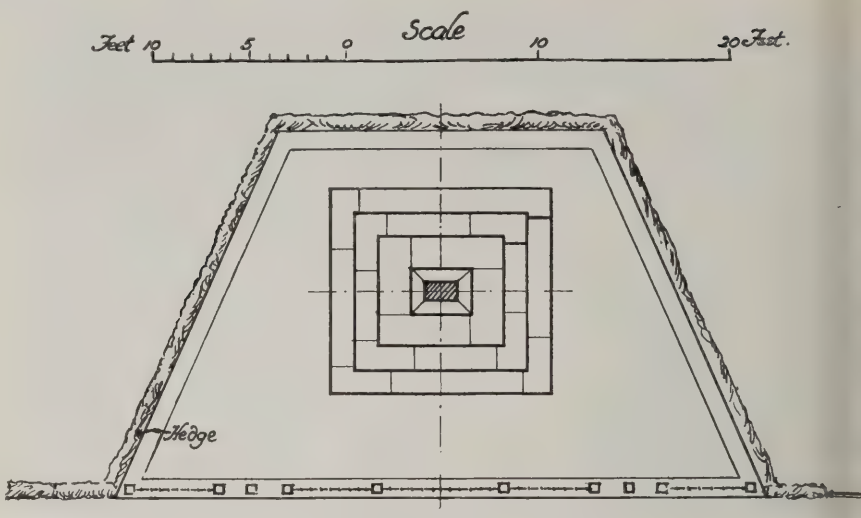
Museum as War Memorial Building. Premiums £650, £250, £100. Promoters not bound to engage author of winning design as architect. Particulars at R.I.B.A., 9 Conduit Street. Designs to Mr. T. F. Cheesman, Princes Street, Auckland. Closing date February 28, 1922. Members of the R.I.B.A. and of the Society of Architects are requested not to take part in the above-named competition without first ascertaining from their respective societies that the conditions have been approved by the Councils. (Full particulars of this competition were published in our last issue.)

New Hospital Buildings at Cairo.

New buildings of Qasr el' Aini Hospital and School. Accommodation 1,225 beds. Assessor Mr. John W. Simpson, PP.R.I.B.A. Apply, enclosing cheque or draft for three Egyptian pounds, or its equivalent in sterling, to the Secretary, R.I.B.A., 9 Conduit Street, London, W.1. Closing date for preliminary competition October 3.

Birmingham Hall of Memory.

Hall of Memory. Cost not to exceed £30,000. Premiums £500, £300, and £200. Assessor, Sir Reginald Blomfield, R.A. Competitors must have occupied offices in Birmingham for the past six months. Closing date October 12.



PLAN OF LLANDINAM WAR MEMORIAL.

Llandinam War Memor

The war memorial at Llandinam, w is a small parish in rural Montgom shire, about midway between Newt and Llanidloes, takes the form of a C Cross in grey Cornish granite, suppo on a substantial base and steps. intended to be a wayside cross, the closure in which the memorial st being recessed off the main road thr the village. There will be a close-cli hedge round the enclosure where temporary railings are shown. granite posts and chains were not or ally intended, but it was decided to h them to prevent indiscriminate tres The memorial was designed by M Alwyn Lloyd, F.R.I.B.A., in associa with Mr. J. A. Hallam, of Cardiff. work was carried out by Mr. Wm. Rob Newtown; the total cost—including cross, lettering, posts and chain, paving—being £608.



LLANDINAM WAR MEMORIAL.

T. ALWYN LLOYD, F.R.I.B.A., AND J. A. HALLAM, M.T.P.I., ARCHITECTS

The Week's News

Sir Charles Ruthen.

r Charles Ruthen, past president of the ety of Architects, and now Director- eral of Housing, is touring the North ngland to inspect housing schemes.

Merioneth County Buildings.

olgelly premises, including "Brown se," an old hostelry, have been pur- ed for £2,700 by the Merioneth nty Council. In future they will be as county buildings.

Cheadle Hulme Architect's Will.

r. William Smith, of Oak Avenue, ıdle Hulme, architect and surveyor, ıerly of Crumpsall, Manchester, left 70 gross and £3,615 net.

Expanding Guildford.

uildford Town Council has applied to Ministry of Health to extend the ıdary of the borough by 1,035 acres, ıding Onslow village and the new ing area at Guildford Park.

Birkenhead Housing.

rkenhead Corporation has purchased ıer Bebington golf course for housing oses. Notice to quit two years e has been served on the trustees of golf club.

Ardwick Municipal Washhouse.

ı a proposal to purchase a site at vick for a washhouse, the Finance mittee is to suggest to the Manchester Council that a complete scheme, ing the total cost, should be sub- ed before action is taken.

Dunfermline War Memorial.

ork in connection with the erection ıe War Memorial at Dunfermline is eeding steadily. Mr. G. Washington vne, architect, R.S.A., Edinburgh, ared the design and is superintending vork.

War Memorial at Strathblane.

war memorial cross at Strathblane unveiled by the Duke of Montrose. tands on a prominent site, and is ed out in stone from the Doddington ries. The design is by Sir R. ner, architect, R.S.A., Edinburgh.

Wren Dome in Danger.

appeal for aid in saving the dome of tephen's, Walbrook, is made by the r. As a result of the drought the covering has slipped, exposing the surface of the plaster enrichment of interior. To save this the rector to raise £1,350.

Orsett Housing Matters.

a meeting of the R.D.C. the sur- reported that the Ministry of h had approved the lay-out and ates for the erection of twenty-four s at West Thurrock. It was agreed nd a deputation to the Ministry of h with regard to the Stanford-le- housing scheme.

Witham's £5,500 Road Scheme.

e Roads Committee have considered uestion of macadamizing the road Newland Street to the Manse, and ımended that the work be under- by the Surveyor. The cost of the ıe will be about £5,500. The ıe is quite ready, and can be pro- d with as soon as the Council get on to the loan.

Chester Cathedral.

The Dean of Chester states that only by a big effort will Chester Cathedral be restored. There are ominous signs and symptoms, big cracks, and deteriorating stone in the building. The bells can no longer be rung, as the tower will not stand the strain. The north wall of the nave is in a bad condition, and much must be done at once.

The New Manchester Exchange.

The King will reopen the Manchester Royal Exchange on Saturday, October 8. The alterations to the Exchange, designed to make it the largest building of its kind in the world, have taken several years to carry out. In the course of the work two streets have been closed, and the floor space has been increased from 4,405 to 7,000 square yards.

Society of Architects' Examination.

The date for receiving entries for the October Membership Examination of The Society of Architects has been extended up to and including the first post on the morning of Thursday, September 15. A syllabus, form of entry, etc., can be obtained on application to the Secretary of the Society, 28 Bedford Square, London, W.C.1.

Housing the Yorkshire Miners.

Dr. Addison has been investigating housing conditions in some of the Yorkshire mining areas. Around Hemsworth the Rural District Council has over 1,200 houses in course of erection. At Brierley Dr. Addison was impressed by the lay-out of a new mining village, where semi-detached cottages are ranged in a rectangle round a large village green with planted side walks. The miners insist on having parlours as well as living-rooms in their cottages.

Kiewa Hydro-Electric Scheme.

H.M. Senior Trade Commissioner at Melbourne has forwarded a copy of the report on the Kiewa hydro-electric scheme by the Electricity Commissioners of Victoria (Australia), which includes the report and estimates of the scheme by Mr. A. G. M. Michell, M.C.E., their consulting hydraulic engineer. The reports may be consulted by United Kingdom firms at the enquiry room of the Department of Overseas Trade, 35 Old Queen Street, London, S.W. 1.

A New Site for Statuary.

The question has been raised as to what shall be placed upon the new pedestal erected at the south-east corner of Westminster Bridge, as a finishing touch to the new County Hall and a balance to the Boadicea group at the opposite corner. One suggestion that seems to find favour is that M. Rodin's beautiful and impressive gift-piece, "The Burghers of Calais," shall be taken from its present obscure site in Parliament Terrace Gardens and placed here on the new Surrey-side base.

Roman Fort at Scarborough.

Definite evidence of the existence of a Roman Fort on the Castle Hill at Scarborough has now been discovered. Mr. Gerald S. Simpson, the archæologist, has been at work for over a fortnight. Traces of the mediæval church have been found showing that the chapel referred to by Leyland, the historian, in 1535, was built on the site of the Roman Fort. The first portions of the Roman walls have now been reached.

Pembroke's War Memorial.

The County of Pembroke War Memorial has been erected in the county town of Haverfordwest and consists of a monument of Forest of Dean stone standing in the public square at the foot of the town. On four sides are cast-bronze panels, one of which bears an inscription, while on the other three appear the names of the 1,184 men of the county who fell in the war. The monument, 20 ft. in height, is surmounted with the Welsh Dragon carved in stone. Messrs. Oswald Milne and Paul Phipps, architects, of London, were the designers.

Dispute as to Architect's Fees.

The award of Mr. Paul Waterhouse, F.R.I.B.A., who sat as arbitrator in the dispute as to the architect's fees for work in connection with the rebuilding of that portion of Middleton Hall which was recently destroyed by fire, has now been delivered. The arbitration arose out of a claim by Mr. James Dunn, architect, of Edinburgh, against Colonel G. F. T. Leather, of Middleton Hall, Belford, Northumberland, for £457 9s., architect's fees. The arbitrator has awarded the plaintiff, in discharge of his claim, the sum of £195 15s.

New Screen in Pickering Parish Church.

In the parish church of Pickering a handsomely carved oak belfry screen has been placed in the west arch of the nave. Whilst part of the carving has been done by Messrs. McLaughry, of Darlington, the whole of the bottom panels are early sixteenth-century linen-fold work. Formerly certain portions of this carving, themselves 400 years old, formed part of an attic partition in the Bay Horse Hotel, Pickering. They were removed when the property was sold some years ago. The screen has been erected by Mr. Alfred Wilson, of Pickering, under the architectural supervision of Messrs. Kitchen, Archibald, and Lee, of Middlesbrough. In general design it follows that of the Jacobean screen at Yarmington, near Oxford.

United Kingdom Firms in Italy.

In view of the difficulty of dealing adequately with calls for tenders by public bodies in Italy, when the tendering firm is of foreign origin, the question of establishing a native house for the purpose has recently been considered by the Commercial Counsellor to His Majesty's Embassy at Rome. In the opinion of the legal adviser to the Embassy, United Kingdom contracting firms might find it advantageous to consider the question of establishing branch houses in Italy.

United Kingdom firms who may wish to adopt the course suggested can obtain particulars as to the formalities necessary for registration and information on the

taxation to which they would become liable on application to the Department of Overseas Trade, 35 Old Queen Street, London, S.W.1, reference being made to D.O.T.536/6/F.G.

Melksham's Development Scheme.

The Melksham Urban Council propose to proceed with a scheme for the development of the portion of their district in the Forest, estimated to cost £6,697, and an enquiry into an application to borrow that amount has been held on behalf of the Ministry of Transport and Ministry of Health respectively. In a brief outline of the scheme, the Clerk said the area in which it was proposed to carry out this scheme was taken into the urban district from the rural area in 1914, and it was understood at the time that certain works would be carried out there, but, the war intervening, they could not be proceeded with. The improvements which included sewerage and the construction of carriage ways and paving, were badly needed in the Forest district. Giving details of the work, he said the sewerage was an essential part in connection with the new housing scheme, under which it is proposed to build 80 cottages, 30 of which were at present in the course of construction.

Preparation for Technical Examinations

We have received the syllabus of the Tutorial Technical Association, of 7–8 Harpur Street, W.C.1, which has been formed to provide expert technical assistance, particularly for candidates taking examinations in the engineering, surveying, auctioneering, architectural, and allied professions. The principals, who have all been closely connected with instructional work in their professions for many years, are: Messrs. W. R. E. Honner, M.Eng., A.M.Inst.C.E.; J. B. Knowles, F.S.I.; E. Godfrey Page, A.R.I.B.A.; and Lieut.-Col. H. W. Hamlett, O.B.E. (business director).

Mr. W. R. E. Honner, who is responsible for the engineering side of the work, holds the degree of Master in the Faculty of Engineering at the University of Liverpool, has had a wide experience of engineering, and specializes particularly in the design and construction of engineering works in structural steel and in reinforced concrete. We understand that he has recently arranged a special series of lectures in reinforced concrete construction suitable for architects.

Mr. J. B. Knowles is responsible for the training of candidates for the Surveyors' Institution, Sub-divisions I and II, and the Auctioneers' and Estate Agents' Institute Examinations, with which work he has been closely connected for some fifteen years.

Mr. E. Godfrey Page has been practising architecture in London since 1903, and has won many competitions in design. He was the architect of the Bridgwater Library, Gravesend Hospital, and flats, houses, and business premises in London and the Provinces, and has exhibited at the Royal Academy. He is responsible for the subjects dealing with architecture, building work, and design.

The business side of the work is in the hands of Lieut.-Col. H. W. Hamlett, to whose suggestion the inauguration of the Tutorial Technical Association was largely due.

On looking through the syllabus no violent breakaway from recognized systems of preparation appears to be contemplated, but the personal interest of the principals in every student's work is the insistent note.

Latest List of New Inventions

Latest Patent Applications.

22235.—Bonhardi, A.—Building blocks. August 22.

22192.—Clegg, D. T.—Roofing tiles. August 22.

22242.—Phillips, T. J. — Reinforced building slab. August 24.

21836.—Annison, R. H.—Apparatus for supplying cement, concrete, &c., in construction or repair of structures.. August 17.

22029.—Barradale, C. G.—Machine for applying stucco, plaster, &c., coverings to walls. August 19.

21643.—Byrd, A. A. A.—Metal shuttering for monolithic concrete building. August 15.

Specifications Published.

150315.—Lemonon, L.—Construction of dwelling-houses or other buildings.

167888.—Tozer, F. M., and Pond, L. J.—Walls.

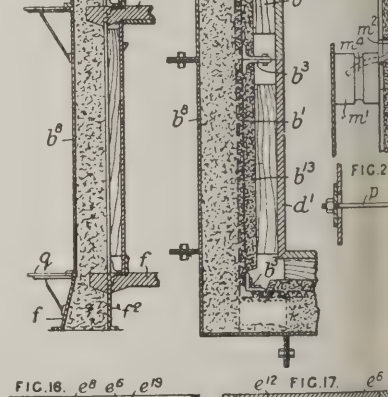
167516.—Boughey, W. S., and Colpoys, A. B. G.—Mechanically elevated scaffold staging and carrier for building or other purposes.

147647.—Pohlmann, A. C.—Subdivided hollow blocks for building purposes.

Abstracts Published.

166012.—Walls.—Bell Bros., Ltd., and Kirby, M. R., Clarence Works, Middlesbrough. — Walls are constructed of pairs of slabs spaced apart. The slabs are supported on foundation sills, the upper edges of the slabs being covered with caps having projections to space the slabs and being adapted to support the roof. The slabs are preferably large enough to extend the whole height and length of the building, and arranged to be disconnected so that the building may be portable. The slabs are secured to each other at the corners by means of bolts, etc., or they may be secured to corner-posts or studs. Preferably the slabs, sills, and caps are bound by reinforcements clamped together in recesses which are afterwards filled in with concrete. Partitions are clamped to the main walls by metal straps. The slabs may be made of the refuse of coke-breeze washeries.

165466. — Concrete buildings. — Clarke, W. W., Jolliffe Arms Hotel, Merstham, Surrey.—Reinforced concrete walls; joist floors with block or slab filling; joist floors with concrete filling; reinforced-concrete beams.–Concrete buil
ings are cast in situ by using p
manent inner moulds and te
porary outer moulds, both
story height. The inner mou
consist of a framework *b*, F
11, faced on one side with c
rugated metal sheets b^1 with
without a layer of concrete
and on the other side with la
ing and plaster d^1. The ed
have angle-irons b^8, by wh
adjacent sections are connect
The outer moulds b^8 consist
flanged steel sheets bolted
gether and spaced from
inner moulds by concrete blo
m^1, Fig. 22, which are hung
place by hooks m^2, T-headed b
p, Fig 27, tie the inner and ou
moulds together. Reinforci
bars may be secured to groo
m^4. The foundation cons
of outer and inner perman
mould sections f^1, f^2, Fig.
similarly spaced and tied,
provided with brackets *q*
support the moulds b^8. F
beams *e*, *f*, preferably of
cast concrete, are notched
the ends and are supporte
notches in the edges of the i
moulds to tie and space
moulds across the inside of
building. The floors co
either of concrete poured
corrugated steel e^6, Fig.
suspended from cross piece
which bear on the beams, c



slabs e^{12}, Fig. 17. The ce
panels consist of timber fr
work e^1 spanning from wa
wall, and to which is atta
metal lathing e^2 and pla
in addition, the panels are
from the beams either by
e^8, Fig. 16, engaging corru
steel e^6 attached to the ti
frames, or by bolts e^{10}, Fig
passed through the frames
corrugated steel e^6 then a
as cross pieces. Partition
consist of two inner
sections spaced apart and
concrete filled in between

The above particulars are specially prepar
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Journal may obtain all information free rela
patents, trade-marks, and designs. Messrs. Rayne
will obtain printed copies of the published specifi
and forward on post free for the official price of

lnesday, September 21, 1921. Vol. LIV. No. 1394

THE ARCHITECTS' JOURNAL & Architectural Engineer

With which is incorporated "The Builders' Journal"



A MONUMENT IN A PARK

27-29 Tothill Street, Westminster, S.W.1.

Nineteenth Century Architecture. 17.—Admiral's House and Commandant's House, Royal Victualling Yard, Stonehouse

Sir John Rennie, Architect



Although Sir John Rennie, who designed what he called "the Royal William Victualling Establishment at Stonehouse," won his fame as a civil engineer,

THE
ARCHITECTS' JOURNAL
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nesday, September 21, 1921 Volume LIV. No. 1394

nte and the Dawn of the Renaissance

is never possible to evade Dante. All down the ages he has affected Life and Thought and Art. Just now he is with us very intensively. Last Wednesday, the 14th of September, was the six hundredth anni-ry of the death of Dante, who died at Ravenna on mber 14, 1321. Fifty-six years ago—on May 14, —a high festival in his honour was held at Florence, a large statue of him, by Pazzi, of Ravenna, was ered. Has the architect any more reason than any cultivated person to regard these dates with venera-

What had Dante to do with architecture? Spiri-, he pervades it.

fessor Jebb has well said that "the Renaissance, in rgest sense of the term, is the whole process of tran- in Europe from the mediæval to the modern order." eed to challenge the effect of the Renaissance on tecture; but what of the effect of Dante on the ssance? Did he not exist a century or so before awn of the Renaissance became visible and recog-le? What, then, could he have had to do with the ecture which is so strong a portent of it?

who shall assign the beginnings of the Renaissance particular date? There have been some such foolish vours; but, of course, it cannot be said quite definitely, an be said of a physical birth, at what precise moment itual birth occurred. Dante, it is true, affects to e exactly when his own *Vita Nuova* began; but men ovements are different, and it is not possible to deny e's position as a protagonist of the Revival of Learning. he died the fourteenth century was but in its first er—had, indeed, but just attained its "majority," as y—but the life and work of Dante as poet, no less than tesman, had told profoundly, or else had signalized nd effects, on politics and science, art and letters; was not until a hundred and thirty-three years after eath that some ingenious Dutchman or German ted the art of printing from movable types, and the means of propagating the New Learning far and and of developing the Renaissance from root to stem, stem to leaf, and bud and blossom; although, oddly h, the first dated products of the press were not emanations from the New Learning, but betokened ld, being two papal indulgences. Yet the more l function of the press was that of "a wine-press that on to pour out the most wonderful liquor which ever owed forth to quench the thirst of man"—a wine t and heady, and sometimes intoxicating, but more healthily exhilarating. Europe, quaffing a first ht of it, was as a giant refreshed.

was not until the end of the century in which Dante hat Italian art shook itself free from the domination e would call it the tyranny—of the musty traditions zantine art. To Niccolà Pisano's hexagonal pulpit e Baptistery at Pisa, which he finished in 1260 or bout, is generally accorded the honour of showing st noteworthy evidence of the influence of northern e in Italian architecture, and the carvings on it e those on ancient Roman sarcophagi. Then came ue (1240–1302), whom Vasari regards as the first painter in the modern manner. So modern, indeed, was Cimabue, that he was reputedly the first to paint from the living model; but to doubt this precedence is a small thing compared with the hardy denial that Cimabue had any corporate existence at all! The tale that he discovered Giotto minding (or not minding) sheep, and drawing their likenesses on a flat rock with a sharp stone, may be another of Vasari's pretty little fables, but may possibly, as John Addington Symonds says, possess the higher dignity of a parable: "He was not found beneath a church roof tracing a mosaic, but on the open mountains, trying to draw the portrait of the living thing committed to his care." With him the *vita nuova* in art had a definite beginning. Casting aside all thought of convention, he went straight to nature for his models.

Of Dante's period, and perhaps directly due to the influence of his "Purgatorio," are the "Triumph of Death" pictures in the cloisters, built at Pisa in 1278 by Giovanni Pisano. Of these the painter, were it Orcagna or another, was the spiritual ancestor of Piranesi, who limned nothing more horrible; nor did Holbein's "Dance of Death" exceed them in this quality of gruesomeness. These, however, are, at least in subject, a throw-back to the old theological motifs, but not unmixed with humanism of a sort. It was reserved for Luca Signorelli (1441–1523), however, to earn the title of "the Dante of fifteenth-century painting"; many of his themes were taken directly from the "Purgatorio," and in his frescoes in the cathedral at Orireto he set the example of glorifying the nude figure.

Enough, however, of the more or less subtle influence of Dante on painting, of which the golden age did not arrive until the epoch of Leonardo and of Michelangelo. Not but what painting is inseparable from architecture, as Dante is inseparable in thought from the Renaissance. No building, no painting; and it is often difficult to say quite positively whether an Italian artist of the Golden Age was more of a painter or of an architect; and if he made furniture, built fortifications, devised engines of warfare, carved cameos, and designed and engraved precious settings for jewels, there was then none to fasten on him the stigma of "Jack-of-all-trades." The greater his versatility the more he was admired.

It was hardly before the fifteenth century that architecture was affected by the new movement. Filippo Brunelleschi, although his most important architectural work graced Florence, his native city, had brought thither his enthusiasm from Rome, where he had spent his early years. In Rome they had made some such rediscovery of the merits of their despised and neglected early buildings as (if small things may be compared with great) we have made, within the past decade or so, of the beauties of Georgian houses, which in Victorian times had been destroyed wholesale to provide sites for modern abominations. Indeed, merit is even being conceded—more or less grudgingly—to mid-Victorian buildings whose architects are indifferent to either praise or blame. Well may the present-day architect cherish in secret the timid hope that the whirligig of fashion will bring his buildings into favour. It is but Christian charity to encourage his

wistful hope that a new Renaissance that will lift his sorrowing soul out of Purgatorio into Paradiso. At any rate, the lesson from Rome may comfort him with that hope; for there the ruins of beautiful monuments of antiquity were being used as quarries for modern work until, early in the sixteenth century, Raphael appealed to the Pope to stop the scandal. It is sad to think that the great painter's early death was due to a malignant fever caught while he was superintending excavations for valuable antiquities among the ruins; the taste for classical art of every kind having in his time set up a passion of enthusiasm which has not yet wholly died out, and its smouldering embers have been fanned into at least a flickering flame by these sex-centenary celebrations. So close is the unity of the arts, so potent is their effect one upon another, that it is safe to conjecture, not, certainly, that, in popular parlance, "If there had been no Dante there would have been no Wren," but, with more probability, that if there had been no Dante the work of Wren would have been very different. In one respect at least Dante's work was indisputably an inspiration to the artist: his poetry is gloriously architecture.

Atelier Students' Fancy Dress Ball

A students' fancy dress ball never fails of being a joyous occasion. Always there are artists in it. They simply could not keep away from it, even were it organized by student grocers' assistants! And, of course, the artists are always the life and soul of it. Their high spirits excite as much envy and admiration as their wonderfully designed dresses. But what of a fancy dress ball got up by artists themselves? That should reach the zenith of æsthetic invention, not unmixed with a certain decorous drollery. From an announcement on a later page it will be seen that such a treat is in prospect. It is well known that the Beaux-Arts Atelier system of design, introduced into this country in 1913 by the Society of Architects, depends for support on its own resources (such as they are), and on the generosity of contributors who recognize the value and importance of the Atelier system. Funds are urgently required, and the proposed fancy dress ball should help mightily to replenish the exchequer. Nothing further need be said to commend so interesting and so prospectively profitable a project.

Road Transport: A Practical Suggestion

Road transport is a matter in which the architect, as well as the contractor, may well be keenly interested. Motor traffic, it is a matter of commonplace observation, is greatly in advance of the accommodation for it. Lord Montague of Beaulieu, in his important series of articles on the subject, showed conclusively that road-construction is, in spite of recent very considerable improvements, still lamentably inefficient, in spite of the ingenuity that has been lavished on it by specialists. Problems of construction and surfacing, however, must be left to the engineer to solve. What more nearly concerns the architect and the town-planner is the utter inadequacy of the accommodation for motor traffic, the almost inexplicable absence of terminal buildings and intermediate stations. At present these are merely casual and accidental. There is no regularity in their occurrence, no standardized system in their design or in the accommodation they afford. The motorists' map should tell him not only where to find them, but what accommodation he may expect in them. All is chance and hazard. Repairing, replenishing, and housing facilities are usually clustered, not to say congested, in towns, and the motor user may find himself the victim of a breakdown miles away from the nearest relief station as one may call it, and with no means of telephoning to it. When the roads were alive with military traffic, telephone boxes of temporary character were erected at fairly short intervals among the most frequented roads; but these have disappeared. Why not systematize the accommodation for motor traffic? Wealth awaits the syndicate that organizes the st and other facilities along the roads, with super-accomm tion at the terminals and at the "junctions" wher main travelled roads converge; and the architect who t out and designs a suitable series of buildings, and the planner who designs them, will acquire fame and ear gratitude of motorists of all denominations. It shoul be left to the char-a-banc proprietors to take this mat hand.

Compton Verney Sold

Compton Verney, near Kineton, Warwickshire, was built for the Willoughby de Broke family by R Adam, has just been sold, together with the esta 5,079 acres, to a racehorse owner. Gwilt, it will be re bered, did not like Adam's work. Adam he regarded fashionable architect whose eye had been ruined b corruptions of the worst period of Roman art," an whites of the critic's eyes and the palms of his hanc simultaneously visible as he records with old-m horror the shameful fact that "the depraved compos of Adam were not only tolerated, but had their admi Gwilt admits, however, with an accession of old remorse at having been perhaps "a leetle too se "Yet had he his happy moments." For did he not Kedlestone, in Derbyshire, for Lord Scarsdale? The here, in this virginal judgment, is not exactly what it to have been, "but the whole is magnificently conc and worthy of any master." None of Adam's bui except Kedlestone, according to Gwilt, "would nc credit to a mere tyro in the art." The criticism a phrasing may be strongly reminiscent of the primers prim Miss Trimmer; but there is much truth in it.

Vandalism at Versailles

Stands Paris where she did? Or is it that her repu for exquisite taste in matters of urban amenity was what overrated? Whatsoever the explanation ma the shocking fact is recorded that an incinerator, an el plant, and a rubbish dump all complete, are to occupy within 80 yds. of the park, and hardly 450 yds. fro Petit Trianon. But the character of Paris for *nettet* yet be saved. Bitter and ceaseless is the outcry a the chronic untidiness of the Paris streets, which ar petually strewn with litter; and now there has been an even more vehement protest against the propo put up a refuse destructor within sight of the Pal Versailles. To what extent, if at all, the untidines the incinerator stand towards each other in the relat cause and effect is not clear; but in any case and ir instance the indignant complaints discount the cha decadence in the Parisian's jealous regard for the *c ances* of their still beautiful city.

Dundee's Danish Bricks

"Cheap and nasty" is still a saw of might. Dund supplied the latest evidence of its truth. Councillor is reported as saying, at a meeting of the Housing Com of the Dundee Corporation, that Danish bricks purc for use in the municipal housing scheme "were miss and in irregular sizes. There were," he said, "some hc samples of bad workmanship" in the 200,000 brick had been delivered as an instalment of the million or and the contract had been cancelled. We submit th Dundee Housing Committee cannot be acquitted o pable greed and folly in this transaction. They w seems, tempted to send their order abroad becaus Danish bricks were offered at about 45s. a thousand cl than English bricks. What other result could have expected than that which Councillor Reid so dol records? Dundee should take to heart the not alto ignoble advice, "Encourage British Industries." N do this in the case of bricks, above all things, is to derision.

Sir Robert Smirke

By E. BERESFORD CHANCELLOR

ALTHOUGH we know, on good authority, that comparisons are odious, we may, I think, venture on one here, and say that Sir Robert Smirke was the David of English architecture. The English ner and the French painter were both interpene- d with the classic convention; they both pursued their with the same singleness of purpose; they both ited those limitations which will nearly always be l when native conventionalism goes hand in hand with ire to rise to an eminence in that direction of art which innate in a man's character, and which is at variance his environment and, to some extent, with his up- ing.

ere have been many artists in paint and sculpture in country who have aimed at classic ideals. Many of have been in a measure successful, but only a few become, so to speak, classic themselves. For instance, macott, a frequent collaborator with Smirke, by the as a classical sculptor, but no one would venture to that he was classic in the way in which Flaxman was c; just as no one could place Smirke among those tects who were outstanding exponents of the Greek

The fact was that the architect possessed a certain for producing what was regarded as necessary in this ion; but in no instance left anything of consummate , with the possible exception of the British Museum; and that has been subjected to much hostile criticism. Nothing that he achieved, however, though lacking, as Browning has it, 'a gracious somewhat,' ever sank into mere mediocrity.

As has been well said, every building entrusted to him was sure to possess the required amount of classic simplicity and dignity, the Ionic portico and pediment generally forming the most important feature in the design. In short, he knew how to satisfy the public taste at a time when that taste was floundering in a somewhat heavy sea of unoriginality, while it groped about in a sincere desire to follow good examples. In an age of great architectural endeavour Smirke would not have been regarded as more than mediocre; in the particular age in which he lived and worked he became something of an outstanding figure.

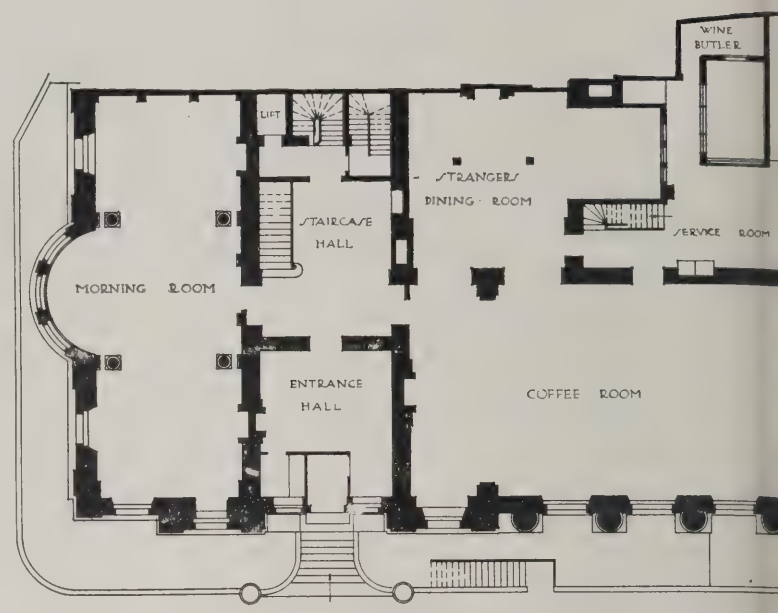
Robert Smirke was born in 1781, and was the eldest son of Robert Smirke, the R.A., well known as a successful illustrator of Shakespeare, Cervantes, the Arabian Nights, &c. His early education he received at Apsley School, Bedford, and, so far as his art training was concerned, from his father until, in 1796, he entered the Royal Academy School where, three years later, he obtained the gold medal with a "Design for a National Gallery of Painting." He was then articled to Soane, but only remained with him a few months, subsequently travelling in Italy, Sicily, and Greece to study the architecture of those countries; the



SOUTH VIEW OF THE CUSTOM HOUSE AT THE PRESENT DAY, AS REMODELLED BY SIR ROBERT SMIRKE CIRCA 1825.

result being the publication, in 1806, of a folio, "Specimens of Continental Architecture." Curiously enough Smirke's earliest buildings (Lowther and Eastnor Castles are examples) were in the mediæval style, a style he soon abandoned, however, for that classic convention, Doric and Ionic, from which he afterwards seldom departed.

Apart from his own undoubted ability, his way was made easy by the influence of his father and his father's many friends; and he was soon employed in erecting in London buildings of all sorts and kinds, most of which exhibited the classic style with which he now identified himself. The first of these was Covent Garden Theatre with its great Doric portico, erected in 1809 (it was destroyed by fire in 1856), and notable as being the only building in London which the great Flaxman adorned with the fruits of his consummate genius. This was followed by the Royal Mint, the General Post Office (in 1823), the College of Physicians in Trafalgar Square, and the Union Club close by. He also added the east wing to Somerset House, now King's College, and the present façade to the Custom House. By this time his name had become so well established that commissions came in thick and fast. He had been elected an A.R.A. in 1808, and a full Academician three years later; while he subsequently held the office of Treasurer to that august body, from 1820 to 1850.



THE UNION CLUB, LONDON: GROUND FLOOR PLAN

Although, as I have said, Smirke chiefly clung to the classic convention, he could hardly, if he wished to accommodate himself to varying tastes, avoid, here and there, departing from it; and a case in point is exhibited by the work he at the Temple. From 1814 he had held the office of surve to the Inner Temple, and in 1830–1, he designed the libr and dining hall in that necessarily Gothic style which t environment required; while he also designed the new bu ings in King's Bench Walk erected after the fire there 1838, as he had previously (in 1824) rebuilt Garden Cou



THE UNION CLUB, TRAFALGAR SQUARE, LONDON.
SIR ROBERT SMIRKE, R.A., ARCHITECT



Smirke's masterpiece, the British Museum, one of the finest works of architecture in this country, was commenced in 1823 and completed in 1847. Impressively dignified in character it is intensely appropriate to the protection of frail and precious relics. The façade, illustrated above, with its stately portico, bold cornice, and admirably arranged entrance court, is acknowledged to be a composition of surpassing excellence.

urther impetus was given to his Gothic excursions by ommission he received, about the same time, to restore Minster after the fire which occurred there in 1829. ese things were, however, in the manner of exceptional tions from his selected style of work, and he cannot, se of them, be regarded as even a pioneer in that c revival which was, for a time, to supplant classicism pular favour. Indeed, it speaks much for his catho- that Smirke could turn from such labours to under- he erection of that outstanding example of his classic which remains his most enduring monument—the façade of the British Museum. There can be no ying the dignified and noble simplicity of this achieve- and it is, I venture to think, in spite of a certain ness of treatment, one of the most satisfactory archi- al legacies which the earlier years of the nineteenth y have left us. That it is also one of the few buildings ndon which enjoy any degree of open space in front of may well be allowed to enhance its intrinsic effect; ven without this advantage, it is a splendid and, what e, an appropriate structure, and its massive grandeur ly forms the shell within which such an untold wealth asure is enshrined.

nough the British Museum was not completed till Smirke was, concurrently with its erection, engaged rious other buildings in London. Among these was rlton Club, which was first erected in 1836, but which built in 1847, and again reconstructed by Smirke in nction with his brother Sydney during 1854–6. er club-house which came into existence as the of a similar co-operation was the Oxford and Cam- , which the brothers designed in 1856; while the l Service Club and the Junior United Service were lue to the individual efforts of the elder man.

far as I know, Smirke was responsible for only one n, that dedicated to St. Mary, in Bryanston Square, was consecrated in January, 1824, but which can be regarded as adding to his reputation. In 1834 built Gunnersbury Park, and by this work links his with the achievement of John Webb, who had, in built the original house from the designs of his -in-law, Inigo Jones.

It is unnecessary here to set down all the subsidiary work which Smirke, a busy and industrious man, achieved during a long life; but it is interesting to know that, after the fire which destroyed the Houses of Parliament in 1834, he fitted up the Painted Hall as a temporary home for the House of Lords, although he was unsuccessful in obtaining the commission for rebuilding the great pile itself—a commission which, as all the world knows, was secured by Barry.

Among the honours gained by Smirke may be mentioned, apart from those associated with the Royal Academy, his knighthood, which came to him in 1832, and his seat on the Board of the Commission for London Improvements—a post given him by Sir Robert Peel on his retirement from active work in 1845. He was also a Fellow of the Society of Antiquaries, a Fellow of the Royal Society, and a Fellow of the Institute of British Architects, and was associated as well with a large number of less important bodies. Although pressed to reconsider his decision, he resigned the treasurership of the Royal Academy in 1850, after having held that post for thirty years, and, in 1859, relinquished his position as a Royal Academician, when he was the recipient of a very laudatory address on the part of his brother academicians.

In 1807 he is found living at No. 13 Berners Street, in the house which Fuseli had occupied till the preceding year, and there, apparently, he continued to reside till his death, which occurred, however, at Cheltenham in 1867. Of his pupils who attained celebrity the two outstanding names are those of Cockerell and Vulliamy.

If one wished to sum up Smirke's achievement in a phrase, one would, I think, say that it was instinct with a certain dignity and simplicity, but that it never deviated into marked originality. The portico and the pediment, Ionic in treatment, seem to have been the be-all and end-all of his endeavours. But if he was not inspired as only the great have been inspired, he was, at least, an earnest striver after that somewhat limited ideal which, in those days, represented far greater endeavour than would be the case to-day. Within his limits Smirke did much excellent, in one instance quite notable, work; and it may have been the fault rather of his period than of himself that his methods were not broader nor his aims higher.



GENERAL VIEW SHOWING LAING'S CUSTOM HOUSE IN 1816.

High Buildings in London

Some Objections and a Remedy

By FRANCIS LORNE, A.R.I.B.A.

THE increase in the population of the civilized world, with the attendant struggle for existence, has led to a subdivision of labour and a concentration on that restricted work, hitherto unknown. This struggle and concentration are nowhere so apparent as in our great cities, particularly in countries such as France, Germany, the United States, and Great Britain. In years past, when lines of communication were negligible and time was not the serious item it is to-day, cities could afford to spread out, and the fact of one building important in the city's life being widely separated from another such building was a matter of no serious consequence.

It is evident to every one to-day that such a condition cannot exist with impunity. The principal sections of business endeavour should be concentrated, preferably in one area, such as the Bank area in London or the Wall Street area in New York. Here should be collected the various exchanges, head offices of banks, insurance companies, world-wide shipping lines, express and delivery companies, railway terminals, and office accommodation for representatives of the principal trades and manufactories of the country. To have an efficient business office one must have the reins of the business in firm grip, and the case is similar in an efficient city or country. The acceleration and dispatch of business are impossible otherwise.

There is, however, a co-existent tendency, in London at least, to spread out more and more—a rather futile attempt at relief from the tension of modern life. Every year the inadequate, badly-designed, low buildings of the residential and commercial sections of the city remain intact, and every year miles of uninteresting streets are opened up, lined on both sides with the ever-present small shop so typical of London, or the semi-detached dwelling-house in all its suburban horror, complete with cast-iron railing in front, and badly kept (because mostly unwanted) garden behind. This condition has now assumed such proportions that nothing short of a well-equipped expedition can find its way to the city's heart. London in many sections is spreading too much; she is incoherent, divided into a hundred small tow the small town point of view, toward life, and manner of living. is very little of the great metropol her, and one realizes that the c not resemble the trained athlet sinew and limb under control to a world of affairs at an instant's but rather the gawky school-boy pulent old man whose limbs are and have outgrown his years.

One feels more and more that L antidote for this gawkiness is in building. Well-directed effort on of the London architect will conv man in the street that to expan cally is not only cheaper than to horizontally, on account of the tionately reduced ground rent, transportation is easier and qui and down than it is on the surfa ground.

There is a belief in the minds that the high building must m skyscraper of 600 to 800 ft., and t immediately arise of New Y Chicago, with buildings of grea and contracted streets like dark





THE WOOLWORTH BUILDING AND THE NEW MUNICIPAL BUILDING, NEW YORK.



THE ELECTRIC BUILDING, BUFFALO.



THE METROPOLITAN BUILDING, NEW YORK.

nyons. But this need not neces- e so. It is interesting to note that also has embarked on the venture high building. A high building erected in Berlin in the form of riedrichstrasse Railway Station," ill rise to a height of 260 ft. Even n an office building and terminal Barcelona Railway, at least igh, is arising on the Plaza Cata- that city.

ilding of 250 ft., although a high , is not a skyscraper, and it is ubtful if anywhere in Europe the per will ever be necessary; most ow it is not desired.

doubtful if there is any part of a ty where the demand for larger her buildings is greater than in y Corporation area of London. reas of the city also demand ex- , such as land on both banks hames and in the neighbourhood spaces or squares. There seems o very definite reason in these r prohibiting buildings from rising ight of 150 ft. to the wall-head, enclosing fourteen floors above und level, with a tower or feature oors therein above this height, more space be required. This should of course in all cases be d in area to about 25 per cent. total area of the property, and ot to exceed 250 ft. in height from nd. A building of 150 ft. will not destroy the access of light and air to any well-constructed, well-lighted adjoining building, and as, if above this height, only 25 per cent. of the total area is built upon, the rights of others cannot be injuriously affected.

Let us now deal with a few difficulties in the way of the attainment of this privilege and, if possible, find a way out.

The first objection, strange to say, will probably arise from the very public which will benefit most from the great concentration of the nation's work which should ensue from the high building, and although the attitude of the public is in many cases foolish, it is no le the less sincere, and must be regarded accordingly. It is the province of the British architect to educate the public in architectural matters. It is for him always to take the offensive. For what else, we may ask, is he paid? Surely not to erect bad buildings because they are asked for, especially when he knows better. He must show the public how life can expand other than horizontally. He must show that the high building can be a beautiful thing, able to satisfy the twentieth-century needs of the British public better than his eighteenth-century buildings can do, charming though many of them may be.

There is a preconceived notion which the man in the street cherishes, and it is that buildings become unsightly in direct ratio to their height. Let us consider if this is really true. Let us take, for argument's sake, a few high buildings, such as the Victoria tower of Westminster, Big Ben Clock Tower of the House of Commons, the campanile of Westminster Cathedral, the steeples of the city churches by Wren and Gibbs, the spire of Salisbury, and the towers of Lincoln, Durham, and York. In so doing we have touched some of the chief examples of high buildings in this country and also some of the most beautiful, varying in height from 280 to 400 ft. On the other hand, one could pick thousands of buildings not more than 80 ft. above the streets which suffer from every ailment of architecture and violate every law of beauty.

Would it make Westminster less pleasant or less habitable if floors were placed in the Big Ben and Victoria Towers every 11 ft., giving thereby about twenty-two floors? On the contrary, I think even the most conservative members of both legislative chambers would appreciate the good air and view to be obtained from the upper stories. Yet the top floor in the case of the Victoria Tower would be 250 ft. above the ground. Can anyone deny in looking down Whitehall or Lower Regent Street any evening that this tower is one of the most beautiful things to be seen in the city? There are many buildings, however, in New York and Chicago looked upon as skyscrapers which are of no greater dimensions than this tower.

Buildings with only One Front

One of the principal objections to the high building is that so many of them only possess one front, the other fronts (which should be fronts and are not) being obviously sides and back. The commercial promoter of the high building, and often his architect, too, feel it necessary, in many cases, to treat in an architectural manner only the side of the building which faces the street. They will allow the other sides to tower into the air obviously as back or sides, too often carelessly treated in cheap brick, and they then crown the building with the ever-present water-tanks. This is obviously objectionable, and both the owner and his architect reap, in due time, their due reward for this false economy.

If all faces of the building, on the other hand, are well treated as a building front there is a prospect of attaining that beauty and inspiration which a great mass of good proportion always conveys. It is hard, however, to make the public (especially the financial section of it) realize that there is commercial value in a beautiful building, and it is largely, as has been stated, the province of the architect to do this.

The Restriction of the Building Acts

The high building in the modern city is only desired when controlled within certain definite limits. A reckless overriding of the reasonable privilege of expansion upwards, a sort of mushroom growth in fact, is derogatory to the public welfare. For the purpose of regulating this and of defending the rights of all property owners the Building Acts exist. These Acts vary considerably in cities such as Paris, New York, and London. Paris is, of course, not nearly the commercial centre which New York and London are, and that being the case does not compare so well, but let us define the restrictions in the two other cities.

In London the Building Acts of 1894 to 1909 limit the height of a building to 80 ft. to the main cornice, with two floors in the roof above that cornice, provided these floors recede at an angle of 75 degrees from the building line at the 80 ft. height. In a few exceptions a greater height has been allowed, largely on account of the Fire Brigade authorities having experienced difficulties in combating fire with a main cornice cutting off two floors above in the roof. In one or two cases building owners have been allowed to raise the main cornice to a height of slightly over 100 ft., with no floors at all above that point. This allows of more floor space and an apparently greater height of building which is, of course, not really the case.

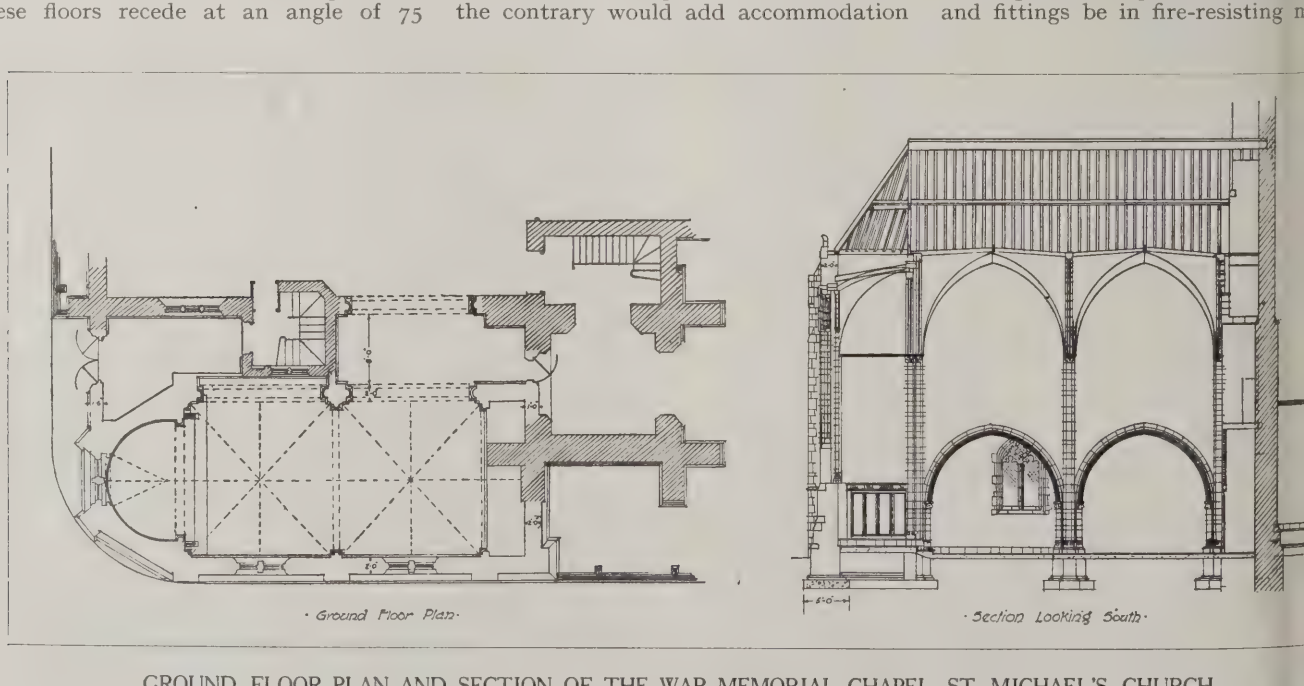
By the New York City zoning resolution of 1916 buildings are restricted in height according to the district of the city in which they stand, the height varying, for instance, in residential and purely commercial districts. The height of the building is defined according to the width of the street on to which it abuts, to which it may be equal in the most restricted area, increasing to two and a half times the width of the street in the purely commercial area. This applies to the vertical face of the building. Above this height the building may go higher, provided there is a set back of 1½ ft. for every foot in height which the wall is carried up. This law also allows towers to rise from buildings provided the tower area does not exceed 25 per cent. of the entire building area, and it seems as if this had been anticipated by Le Brun and Sons in their Metropolitan building, and by Cass Gilbert in his Woolworth building.

This raises a very interesting possibility for London. Can there be any reasonable objection to the occupation of towers on each of the large buildings of London? Would it not be possible, for instance, for all the large London stores, such as Harrods, Barkers, etc., to build great towers 50 ft. or 60 ft. square and from 500 ft. to 600 ft. high, housing their entire official staff, and using the lower structure at the restricted height entirely as a warehouse? The same suggestion applies to many other buildings in the City. If a building, of which there are many, covers an area of 40,000 square ft., a tower 50 ft. square, rising from the centre to 500 ft., would affect the rights of no one, but on the contrary would add accommodation and interest to the City. As explained, the London Buildin prohibit such a departure, but the now has made certain concessio rightly so) to the increasing dem office space, and if sufficient dema made for a privilege of 150 to th head it would probably be obtaine Council already allows features towers to be built quite large enc occupation, and a question imm arises: Why not occupy them cannot sit down and accept o because a law forbids. When a outlived its day and the race has birth, it will, if it is virile enough any mark upon time, make new its own life. But there are many who live on precedent and on pot of old forms. Are the new sho to break through this unfriendly c

Fire Prevention and Cor

A greater difficulty than the res of the Building Acts is the cap the London Fire Brigade to deal fire in a structure of a greater heig 100 ft. from the ground. I am what the pressure in the New Yor mains is, but since the new wate from the Croton reservoir has be the height to which it will rise twice the height possible in Arrangements, however, can be m is so often done in New York, t electric compressors of sufficient p raise the water to any reasonable A compressor chamber can b separate from the building, pr under the pavement or under th thoroughly damp-proof, and enclo walls, floor, and roof of reinforc crete. Access to this chamber gained from the pavement, and be and inspection only by the L.C.C. ties. An electric connection placed in the external wall of t building at a convenient point the pavement for easy access by to set the machinery in motion in fire.

A regulation can also be made high buildings such as exists in Ne municipal building that the cons and fittings be in fire-resisting m



GROUND FLOOR PLAN AND SECTION OF THE WAR MEMORIAL CHAPEL, ST. MICHAEL'S CHURCH, CHESTER SQUARE LONDON.

Chester Square, London

G. Gilbert Scott, A.R.A., Architect





Photos. Architects' Journal.

This dignified little chapel is thoroughly in keeping with the style and spirit of the church to which it has been added as a war memorial. Oak panelling round the walls of the interior will bear the names of the fallen, which will be cut and gilded on the panels. Particulars and constructional detail drawings of the chapel are given on pages 347 and 350 respectively

d that all doors, windows, furniture, .., be in metal. A system of automatic rinklers can be installed on every floor, part thereof, to localize any outbreak fire, also a hydrant installation with nnections on every floor, and complete e-extinguishing apparatus to allow the ff to deal immediately with any out-eak. There should also be one large ir entirely open to the air without ndows connecting all floors and shut from each by metal doors. With ese precautions the danger of fire is ndered almost non-existent, and I can-t believe that the people of London or e people of any other English city are ing to fall behind other countries with gard to their buildings.

Light and Air

The question of the access of light and to the lower floors of any building, and how this may be injuriously affected by e high building, has always been a moot int in London, and probably is as much to-day. But even here it is wise to nsider a little how far one man, be-use he prefers to remain in a dingy ilding with small windows and low ors, has a right to retard the progress another man who aspires to progress yond a century that is past. It is very sirable to have acts and restrictions ch as those which New York has in the oning Resolution." It is not right at a building owner or an architect uld build just as he wishes, or without traint. He may do this in pictures, lpture, etching, or poetry, but architec-e is too vital to permit this, and the nsequences of error are too serious.

I understand that the erection of the uitable Building in New York so affect-the light and air of surrounding build-s that the value of adjacent property s reduced by several hundred thousand unds. It is doubtful, however, if in ndon there will ever be the demand for ldings of the height and dimensions this building, which accommodates proximately 20,000 people. One feels tain they are not particularly desired ner in New York or London. New York, rse, was built very quickly; London of s had time to grow, and London is ikely to allow any mushroom growth stifle the entire population, no matter v profitable it may be to a certain tion of the public.

The Economic Limit

Even in the cities of no control there is economic limit which will govern the ght of any building. I rather presume t many of the high buildings in New rk have passed this limit, just as Ger-ny and Great Britain passed the nomic limit in building ships of great e and speed for transatlantic service. member in 1913 going up the tower of olworth Building, and I saw then many ors unoccupied. It may have been building was only opened shortly ore and had not the time to fill up, but ubsequent visit to that city and to er buildings of a similar class con-ed my first impression that there is oint in the height of buildings varying h the district which it is neither desir-e nor profitable to exceed. It lies with uilding owner and his architects not only to judge the present demands of a district for office space, but also its possible future requirements.

The Costly Matter of Foundations

The matter of foundations is a serious one in all high buildings. Manhattan Island in New York City is singularly fortunate in this respect, having a good base of rock, but this is not true over the whole island, and in one or two cases the rock has been treacherous. This was, I believe, the case in the Woolworth Building foundations, where, after taking borings, it was found that the rock first met in the work of excavating was only a shelf and had treacherous ground underneath. It was necessary, therefore, to sink caissons down to bed rock, about 130 ft. below the street. It may be necessary, and in fact practically nearly always is so, to sink piles of either timber or reinforced concrete, preferably the latter, with sheet piling around. This should be either of wood or sheet steel, or else interlocking channel bar piling to ensure stability in the soil within the area affected. In cases of great load it becomes necessary to sink caissons, which is an extremely expensive proceeding, but the returns from tenancy in a high building are such as to warrant a heavy expenditure on foundations. As already stated the Equitable Building accommodates about 20,000 people, so the return on the investment in this building must be such as to cover expensive foundations and allow the owner to do very well by his tenants in conveniences within the building, even if there is a huge ground rent.

There is a belief that the London soil will not carry a high building, but there are many high buildings in the City of Boston, and it is well known that many high buildings in Chicago are erected on reclaimed land. London clay is a good soil on which to build, and, with the assistance of good piling, it will carry a building as high as we want to see in London. The Victoria and Big Ben towers are quite high enough and I believe also stable enough.

In Conclusion

The modern high building should be erected entirely in fire-resisting material with all finishings and fittings in metal. It should be well supplied with elevators of a good type, the supply being at a proportion of about 1 sq. ft. of elevator car to 600 sq. ft. of office space, excluding, of course, the ground floor, also space taken by toilets, passages, and staircases. All elevators should be timed to travel regularly to the second, to save time. No one should be asked to wait a few minutes because the car is not full. The high building should be supplied with sufficient toilets located on each floor for convenience. The old idea of putting toilets on the top floor, the most valuable floor of all, and drawing the staff there from all floors, is prodigal in waste of time. The building should have a spacious entrance hall with some feeling of dignity about it instead, not the cramped lobby which usually gives access to the dingy office of to-day.

A central heating system is essential whereby the temperature can be kept at 60 degrees in cold weather, with hot-water supplies in all toilets, and a vacuum cleaning plant to dispense with the labour of the human element. It would seem almost superfluous to mention these matters, but, although obvious, they are not at all customary.

When we cover London with offices of a good type, big in scale, with commodious rooms, good light, and adequate heating, the average London clerk, instead of creeping out of a chilly railway carriage into a cold and dingy office building, to rub blue hands four hours out of his working day, and cast furtive glances at a miserable coal fire 15 ft. away, will go to his work with a happier countenance, and a finer architecture will tend to make of him a finer man.

Let us then build for him better buildings in better cities, where he can concentrate on the work he has to do, and, with the natural aptitude of his race, who will deny that he will hold his own?

War Memorial Chapel at St. Michael's, London

This week we illustrate the new war memorial chapel which has been erected at St. Michael's Church, Chester Square, London, from the designs of Mr. G. Gilbert Scott, A.R.A. The oak panelling round the walls of the interior is designed to receive the names of the fallen, which will be cut and gilded on the panels. Blue Hornton stone has been used for the interior dressings—a greenish stone with brown markings—and Bargate stone for the exterior. The roof is covered with green slates. The west gallery, not yet carried out, is designed to contain an echo organ for the main church. At the present moment a buttress divides this gallery, but the organ is designed to screen this buttress, the case of the organ covering it entirely from view. Messrs. Goddard and Son, of Dorking, were the general contractors, the sub-contractors being as follows: J. Jeffreys & Co., Ltd. (heating); J. B. Marr & Co. (electric light); Leyland and Birmingham Rubber Co. Ltd. (Rublino flooring). The stained glass window was designed by Messrs. Powell and Son, Whitefriars, in conjunction with the architect.

Manchester College of Technology

In addition to a roll of honour which is being prepared as a war memorial for the Municipal College of Technology, Manchester, it is proposed to have a roll of service containing the names of those who were students of the College prior to joining any branch of H.M. Forces. The War Memorial Committee are very desirous that the roll of honour and roll of service shall be as complete as possible. If any of our readers are aware of any name which should be included in either of these, they are requested to send the following particulars to Mr. Dempster Smith, honorary secretary: Name, Distinctions, Rank, Regiment, Department of the College, Address if alive, Address of Parent or Guardian.

Damp Buildings: Their Cause and Preventio

By GEO. W. GREY, F.S.I.

(*Concluded from last issue, page* 311.)

SLATE damp-proof courses to half brick walls are often faulty owing to the bricklayers being unable to cut a nine-inch wide slate exactly down the centre, resulting in some being less than four and a half inches in width. The wall is thus thinner at this point unless it is made out with a thick bed of cement, in which case the damp-proof course does not extend through the entire thickness of the wall. This trouble is obviated if it is insisted that the slates shall be supplied from the quarry four and a half inches wide. The levels of damp courses need to be arranged with some thought.

Where floors are paved in sculleries, dairies, wash-houses, etc., damp proof courses should be laid just above the paving, to prevent water used to swill down the floor from rising up the wall. In terraced and semi-detached houses built on sloping ground the damp proof courses will often be put in at a level below the ground on the higher side, resulting in some of the earth being above the damp proof course. In the same way, where one room is paved and the adjoining room has a boarded floor with space below, earth will on one side of the wall be filled in above the damp proof course. In these positions a vertical damp proof course becomes necessary to prevent contact between the wet earth and the absorbent brickwork.

Damp-proof courses to hollow walls should not be taken across the cavity. If carried across, any wet finding its way to the bottom of the cavity on to the impervious damp-proof course will creep up the other side. The cavity should be carried below the damp-proof course to avoid the risk of wet finding its way into the interior half of the wall, and, in addition, should the mortar droppings not be thoroughly cleaned out, they will be in a position where they can do no harm.

Where hollow walls are built on solid walls, a reverse form of damp-proof course is required. In this case the damp-proof course should be taken right across the cavity and turned up and into the inside wall. Hollow walls on top of solid walls, without a damp proof course, will result in saturation at the base of the cavity. Some form of protection required over anything built into hol walls which cross the cavity, and should be taken that the protect extends at each end beyond the fittin built in. If too short, the result is a c centration of the moisture on to the fitt which it was intended to protect.

All residences should be provided w a layer of concrete over the surface un the building, whether compelled by local by-laws or not. This conc should be impervious to both rising gro air and water. Breeze, clinker, burnt ballast do not generally fulfil th conditions, the clinker and breeze giv a honeycombed mass and the bu ballast an absorbent one. Many spe cations for surface concrete are wor "and well ram until the matrix is flush w the surface." This is not what is requir any fine concrete and the cement sho be distributed throughout the whole water-tight result is desired. Bringing fine concrete with its cement to the sur will result in a honeycombed portion the under-side, the part nearer the da earth. Although the fine aggregate the cement should be distributed throu out the whole, the lesser evil would tainly be to bring it to the under rather than the upper, on the same p ciple that one wears a mackintosh on wet side of the absorbent garments.

Several "housing reformers of cheap cottage" suggest that this sur concrete is not necessary and would c it on the score of expense, but it undo edly helps to keep the house dry. A proof of this, vegetation can be fo under some floors where it has b omitted, and in one case at least vegetation made its appearance betw the joints of the floor-boards.

Ventilation is a great preventive dampness, and the spaces under fl should be ventilated and the air mad circulate, so that any moisture for may be quickly evaporated. To en circulation of the air the vent br should be on the opposite sides of building. The necessity for circula of air is borne out by the fact that rot, which is helped by a moist, warm usually commences in the corners room where the air is least likely t on the move. Where rooms requi vents under the floors adjoin rooms solid floors, this can be carried out vent shafts with ordinary drain p from air bricks in the external wall to space to be ventilated. If the floors below ground level and wood blocks direct on concrete are not preferred shafts can be formed in the thickne the wall and taken up above the gro

Another form of ventilation to un floors where opposite walls are not a able is the formation of air shafts in chimney breasts similar to and along the flues, and finished to match the from the fires. The wind blowing a the top of the flues or pots will ten draw out the air from under the fl This will be replaced by air from ou through the air bricks, and therel

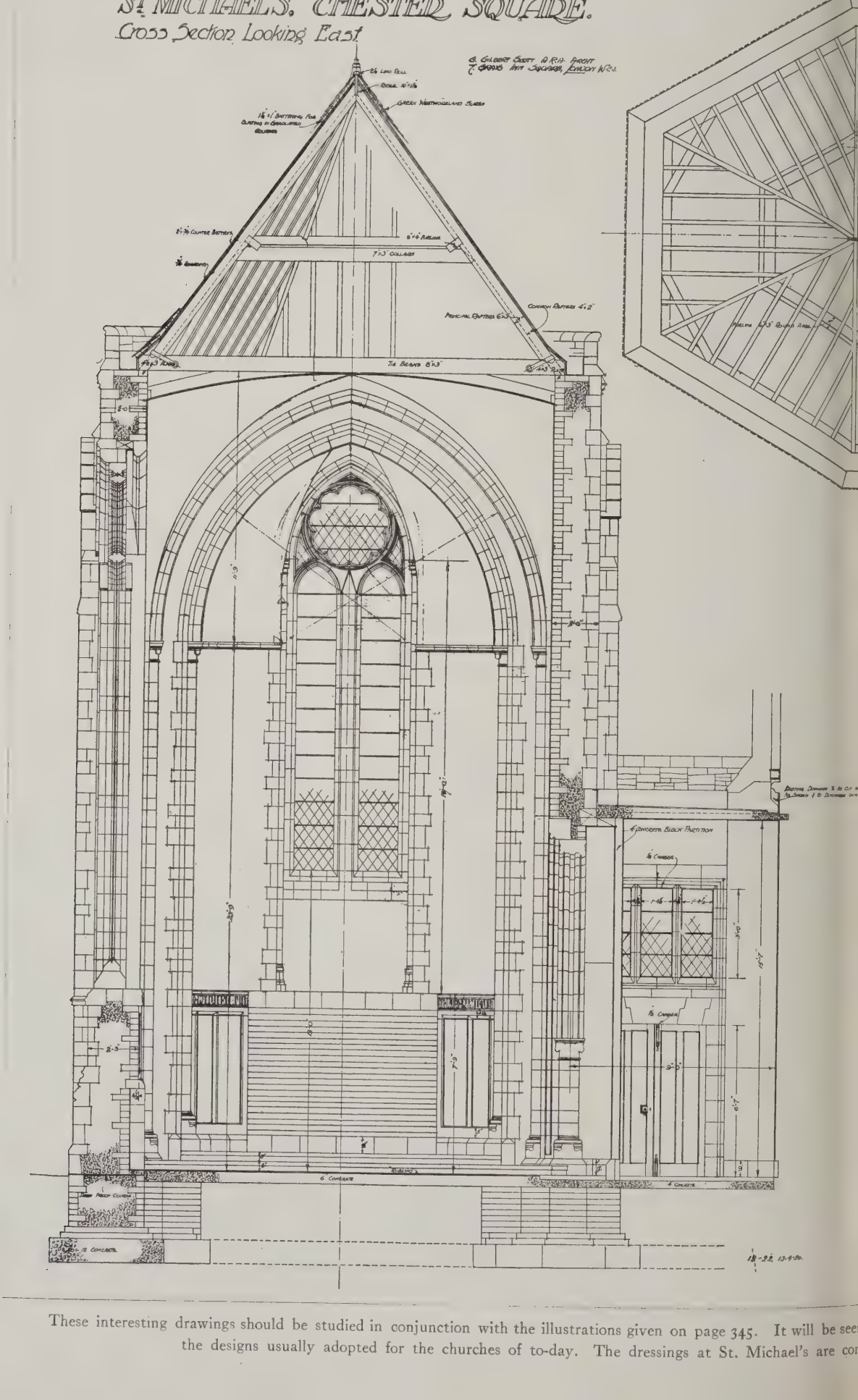


ROYAL VICTUALLING YARD, STONEHOUSE: LAMP POST.

(*See page* 334.)

Architect's Working Drawings. 42.—War Memorial Cross Section and

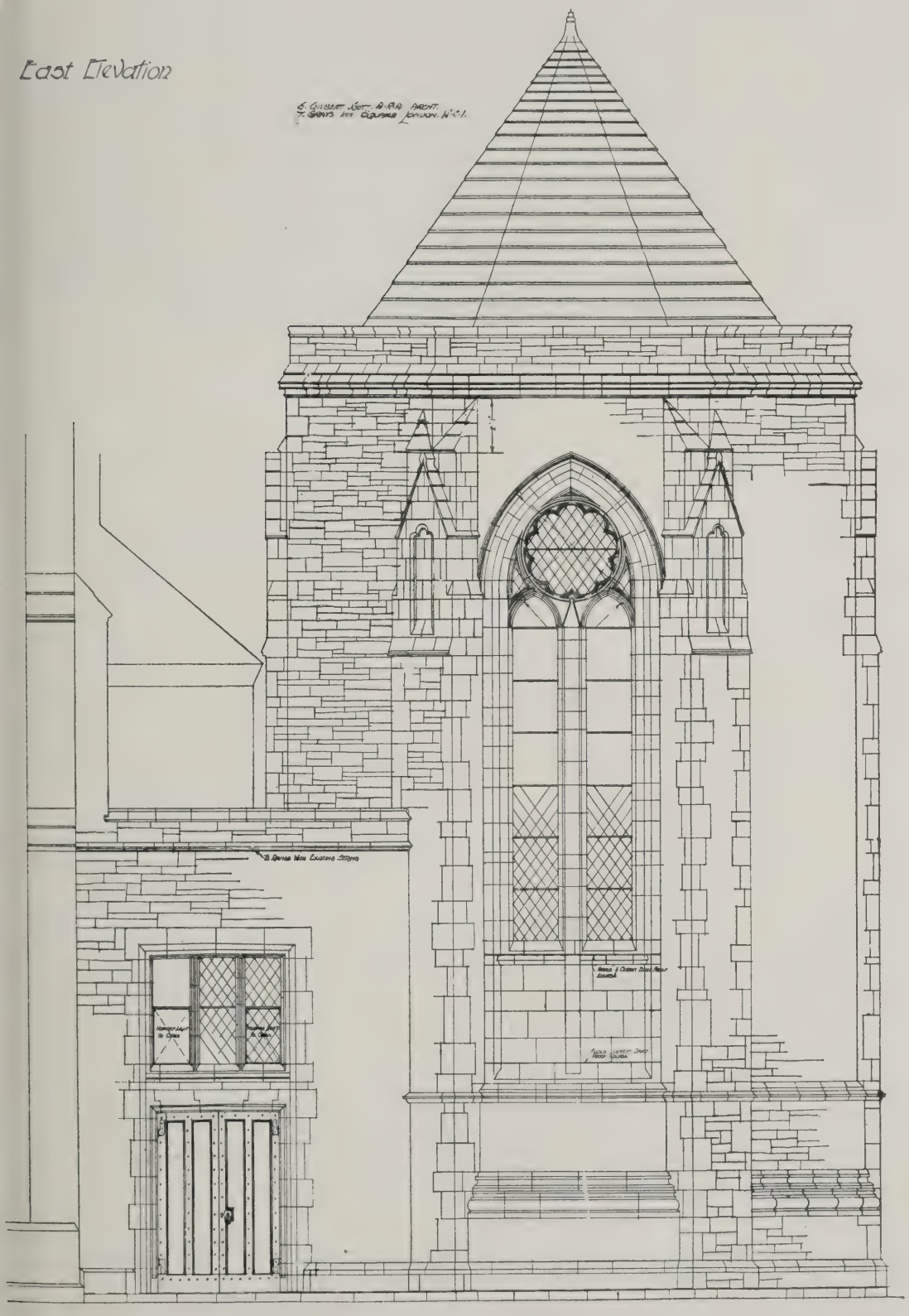
G. Gilbert



These interesting drawings should be studied in conjunction with the illustrations given on page 345. It will be seen the designs usually adopted for the churches of to-day. The dressings at St. Michael's are co

t St. Michael's Church, Chester Square, London : of East Elevation

, Architect



ity with the general style of the building, the window shown follows the mode of a period earlier than that of y of Bargate stone and internally of Blue Hornton stone, green slates covering the roof.



ROYAL VICTUALLING YARD, STONEHOUSE: FIRE-ENGINE HOUSE.

(*See page 334.*)

tant circulation maintained. The air ks themselves should be bricks which ilate. These are often at fault, the orations being very small in area. should be taken that air bricks are rendered useless by the gardener ring them with his flower-beds, or by tenant covering them up with the of keeping the house warm.

ccupiers who bottle up their rooms, om opening the windows, will be found omplain of the damp. These occu- will often mention that they are careful to close their windows when foggy or raining, forgetting that should the fog come in or rain in, this, although perhaps wetting place temporarily, is not dangerous, s the warm, moist, accumulated p.

ne very obstinate case, in which a eyor was called in to advise, is inter- g by reason of its being so uncom- . The tenant of a small house com- ied very bitterly that the carpet of itting-room on the ground floor was first thing every morning. It most inly was, and the owner diagnosed malice applied through a water-can. ever, surprise visits in the morning e the tenant was up did not help ers, and merely exasperated a sleepy ehold. A couple of boards were n up and the space below found to be ry as tinder and well ventilated. builder solved the problem ultimately dvancing the rather uncommon claim his floor had been laid down too well, he joints being as close as possible, the floor practically airtight. The was taken up and relaid with open s, the boards being about $\frac{1}{16}$ in. t, and the trouble disappeared for the explanation no doubt being in act that the room was in all prob- y overheated and over populated evening, with all windows hermetic- closed. During the night the well- ilated space below the floor would the floor boards and the carpet e, and upon this all the moisture of the room would condensate to such an extent that the carpet could have been wrung out.

In another case the damp was a large patch just in front of the fireplace. Very trying indeed it proved until it was enquired, "Where's the hearthrug?" It was hanging on the line to dry, an every-morning necessity, and proved to be a very fine bearskin rug. A prophecy that enquiry would prove that this had been cured with salt was challenged by the tenant who followed the matter up and had to apologise, and that mystery was solved. The salt in the rug, once the fire was out, absorbed every particle of moisture in the atmosphere of the room, and passed it on to the flooring below, which it saturated regularly every night.

Land drains are often executed in a faulty manner. It is generally known that these should have outlets, be laid to falls, and yet many are put in without either, as if the pipes once in the ground became possessed of some magic power against damp. The filling-in is frequently at fault. Clay is often returned to the trench, resulting in the pipes and any stone filling being surrounded by an impervious coat, rendering the drain useless. The stone filling should be taken as near the surface as the purposes to which the ground is to be put will allow, so as to intercept the water flowing down the slope. The filling should also not be too small, or it will find its way between the open joints or holes of the pipes, collecting inside, and eventually stopping the drain up. The hardcore filling should be of a nature not liable to decompose in a wet situation. Burnt ballast should be avoided, as this may return to its original state of clay.

It is usual to follow the fall of the land with the main pipes so as to avoid deep trenches, and, in order to intercept the water as it flows down the slope, the lines of piping should be nearly at right angles to the slope. This can usually be carried out by main and tributary pipes laid herring-bone pattern. Land drains are often put under buildings, the whole site being covered with a herring-bone system. Land drains are collectors as well as conveyers; the open joints and hardcore filling are for the purpose of collecting moisture.

Land covered with a roof, which land under a building is, should only become saturated by its connection with uncovered land, and the field drains should be put around this covered portion to disconnect it and convey any moisture away, so that it does not find its way under the building. Land drains placed under the building have an opposite effect, and convey the water from the surrounding soil to the ground beneath the buildings; if an outlet is provided and all is working well, moisture is being conveyed under the building for the purpose of being conveyed away again. If all is not working well, a lake is being collected beneath the house. With land drains under buildings there is also the risk of settlements. To obtain an outlet they must pass under the foundations; if without outlets they are simply reservoirs of water, if dry the site is dry and their introduction unnecessary.

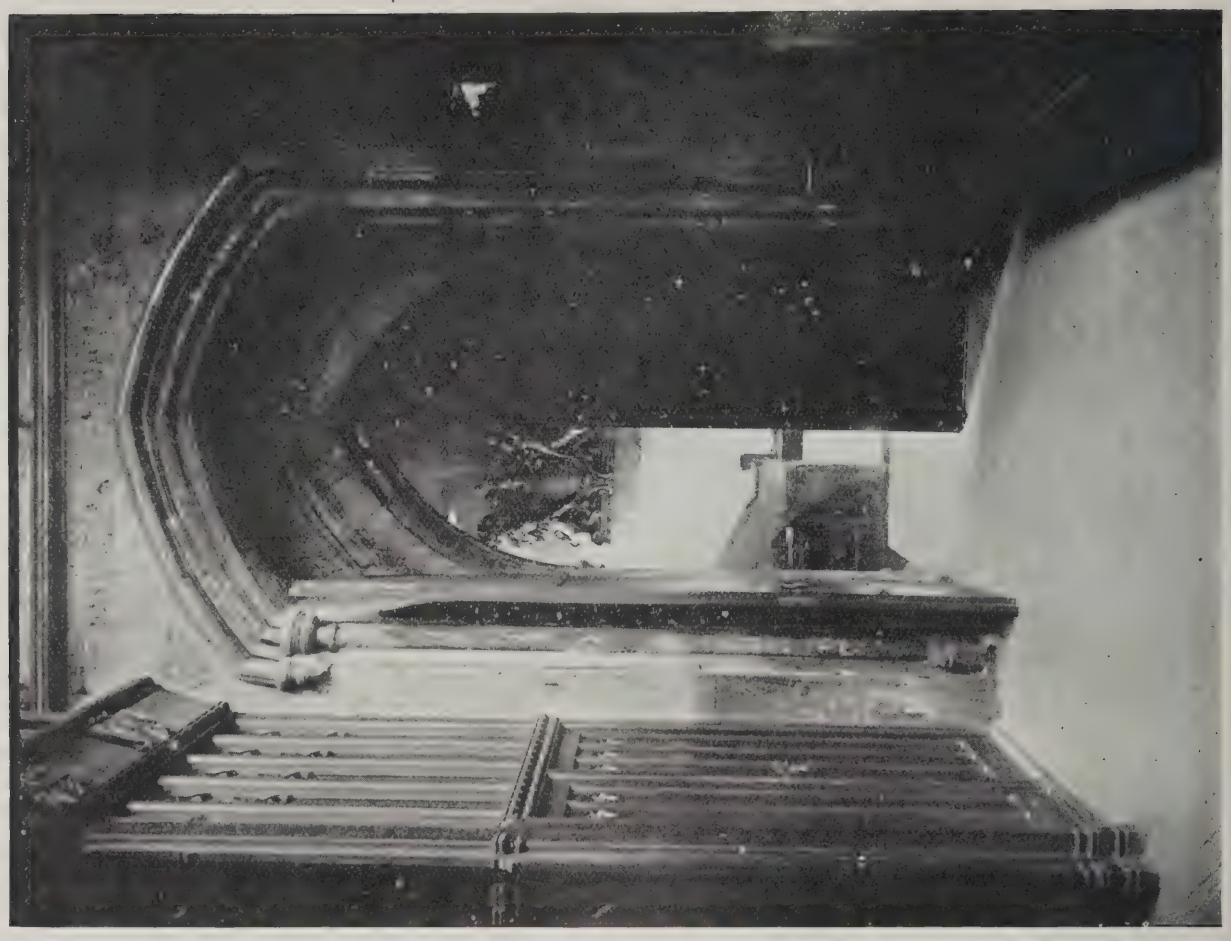
A very popular error where situations are damp is to put hardcore under the surface concrete. In a similar manner it is put round the walls of underground rooms and cellars on the exterior, instead of re-turning the earth. Presuming that the situation is damp, which one is justified in doing, since this is the reason for the use of the hardcore, any water will be collected in the voids between the stones in exactly the same way as it is collected in a sump hole or in a field drain, and a pond will be formed under or around the buildings, increasing the very evil it is intended to cure.

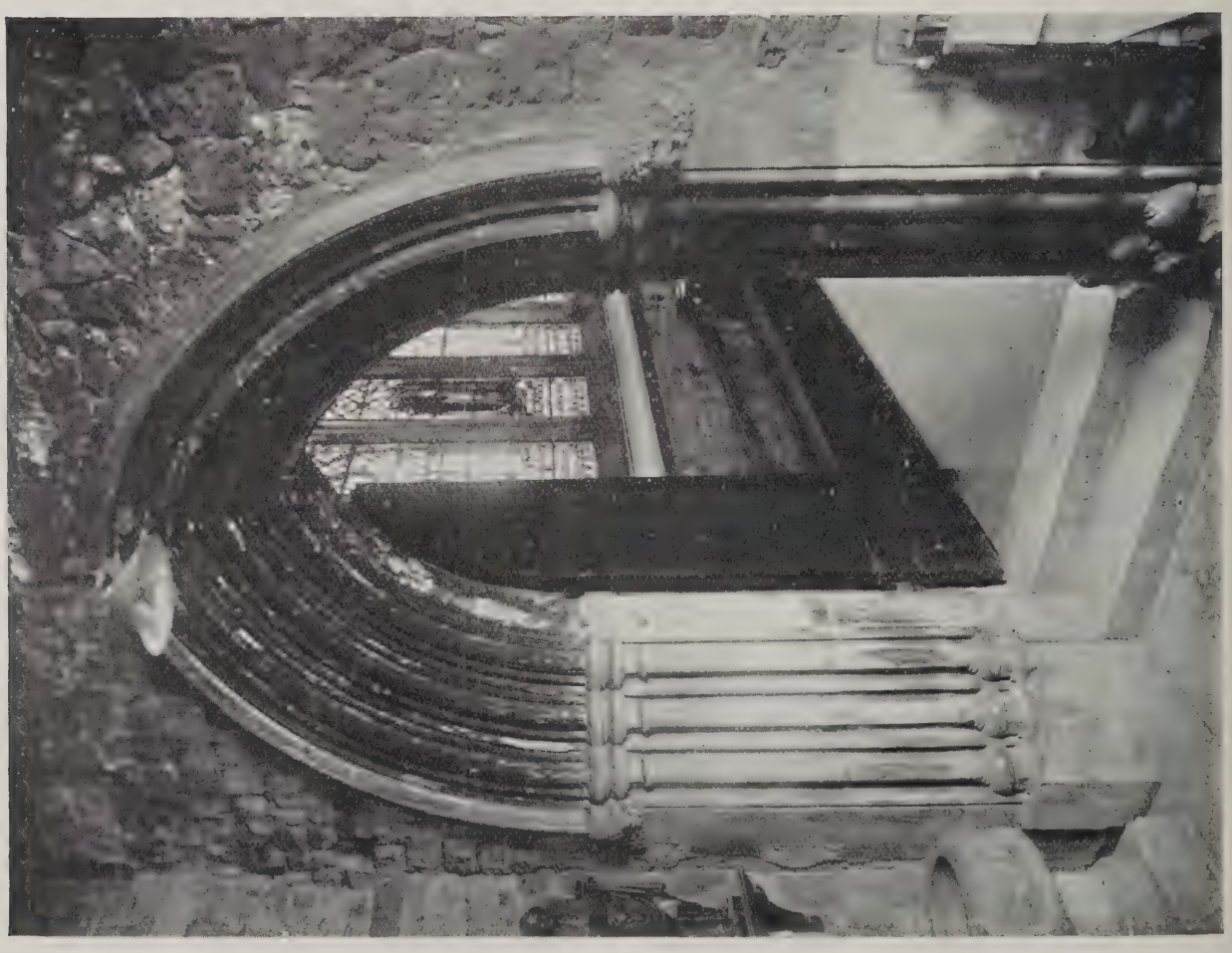
When this form of precaution against damp is adopted, outlets at a lower level would often be difficult to obtain, and, if obtainable, this hardcore becomes a drain, collecting water to pass to its outlet.

Architectural Students' Fancy Dress Ball

A fancy dress ball is being organized, for the opening of the season, by the students of two of the Royal Academy Ateliers—the Society of Architects' Atelier and the Architectural Association Atelier. The ball, which will be on the lines of the Chelsea, the Three Arts, and other well-known festivities, will take place on November 4, and for the occasion the Royal Institute of British Architects has lent its galleries at No. 9 Conduit Street, W.1. Various "stunts" are being organized, and a very jolly evening is promised.

All the profits derived from the dance will go to the funds of the Ateliers concerned, to be employed in the improvement and advancement of architectural training in this country. The supply of tickets is limited, and early application should be made to the hon. organizing secretary, Captain M. G. Kiddy, 28 Bedford Square, or to the secretary of any of the professional bodies. The price of tickets is fifteen shillings, including refreshments; and tickets at a specially reduced price are available for *bona fide* architectural and art students.



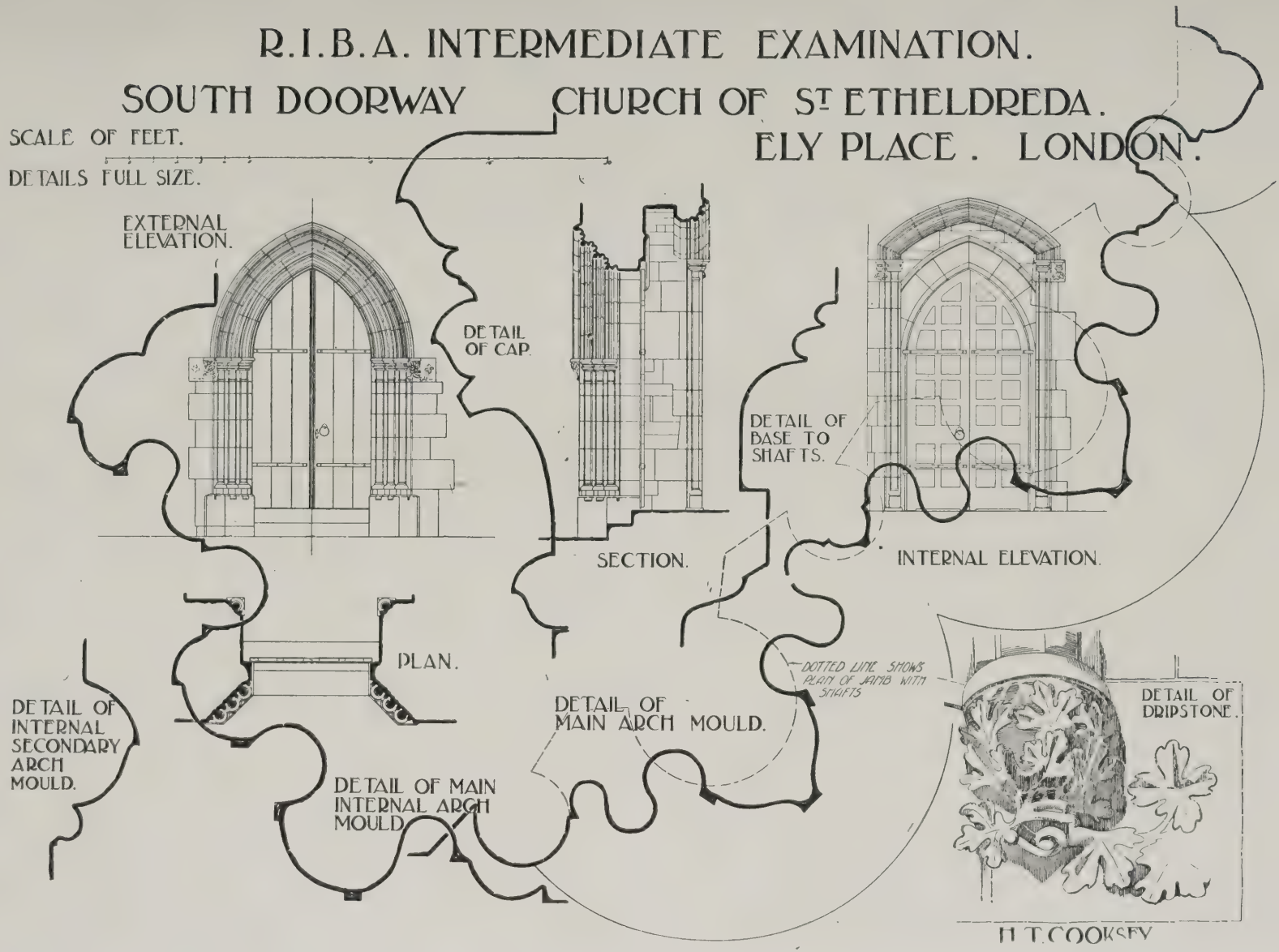


SOUTH DOORWAY, CHURCH OF ST. ETHELDREDA, ELY PLACE, LONDON

Photos: Architects' Journal

Ely Place, London

Measured and Drawn by H. T. Cooksey



The south doorway is a distinguishing feature of the church of St. Etheldreda—at one time the private town chapel of former Bishops of Ely. Built at the close of the 13th century, the church is an excellent example of the Gothic mode of its period. Mr. Cooksey's carefully rendered drawing should be compared with the photographs of the doorway which have been specially taken for this purpose, and are reproduced on the opposite page.

Correspondence

[ow to Educate the Public

To the Editors of THE ARCHITECTS' JOURNAL.

SIRS,—Arthur Welford, in his interest- article on "How to Educate the blic," contends that the best (and haps only) way in which to get the neral public interested in good archi- ture is to allow the architect to take rt in speculative building operations.

I am not aware that there is any rier, as Mr. Welford seems to assume his article, to the architect engaging in culative building. An architect is te at liberty to design and erect a rehouse block, residence, or other build- , and sell it at the best price he can ain, purely as a speculative trans- ion, and the mere fact of his doing so uld not in any way be a reflection on nself or the profession.

A conspicuous example of this nature Adelphi Terrace on the Embankment. is undertaking, erected over a century , cost, if I remember rightly, about 0,000, representing an expenditure something like half a million on the is of present costs. This building was irely a speculative venture on the part the brothers Adam, but, unfortunately them, not a very satisfactory one ncially. Nevertheless, it was a not- e contribution to the street architec- e of London, and I am not aware that professional reputation of the archi- ts suffered, or that the status of the fession itself was lessened thereby. doubt there are other examples of a ilar kind, where architecture has ned without loss of prestige to the nitect or the profession generally.

On the other hand if, by "speculative ding operations," it is intended to an that the architect shall undertake lesign and build a structure directly a client at a fixed sum, either by em- ing labour direct or contracting out, position is entirely altered. In the er case the architect simply becomes a tractor. Having contracted to build a certain sum, he will naturally con- e to bring the cost as much below the d figure as he possibly can, seeing the er he can bring it the more profit he earn.

e may do this by just means or other- , but in any case the system cuts at root of all professional prestige and ity of office, and is one which should be countenanced. As "speculative der" in this sense he cannot take a imate stand as between client and esmen, as he is in league with the r rather than the former. He is not position to rightly advise the owner, ne is interested financially in any ge which might be made. He is rally out to make the best for himself ne expense of his client, and in doing he forfeits his true professional is.

is a well-known fact that when a ence designed by a capable architect es into the market, it invariably com- ds a higher price than a correspond- subject built by the "speculative ler," which goes to show that the ral public do appreciate quality in itecture.

There seems to me no reason, therefore, why the architect should not participate in speculative work when opportunity presents itself, provided he does so in a legitimate manner. If the custom became general it would certainly be the means of bringing his work into greater prominence, and would create an educative influence on the public generally. If this result were attained, surely the profession would not be the poorer or stand lower in public estimation.

JAMES MILLER.

Protection of Ancient Buildings

Some interesting suggestions with regard to the protection of cathedrals and parish churches, and of secular buildings still in use, are made in the report, just issued, of the Ancient Monuments Advisory Committee. The report is signed by Earl Beauchamp (chairman of the committee), Bishop Browne, Sir W. Martin Conway, M.P., the Hon. Cuthbert James, M.P., Sir Lionel Earle, Sir Hercules Read, F.B.A. (President of the Society of Antiquaries), and Mr. Charles Reed Peers.

The committee, in the course of their report, state: An owner who takes care to preserve a monument of national importance is doing a public service, and should receive some practical recognition from the State. It would be to the national advantage that not only advice, but actual assistance in the cost of repairs, should be forthcoming, as in France, from public funds.

The definition of the power of the Commissioners under a deed of guardianship needs amendment. As it now stands, there is nothing to prevent an owner disfiguring a monument under State guardianship by incongruous additions, so long as these do not actually damage the fabric.

The principle has been accepted that the nation has an interest in monuments, apart from, and in some respects superior to, the interest of the owners. It may happen that the exercise of State control will cause a degree of financial loss to the owners, for which in our opinion compensation might fairly be paid.

We wish to call special attention to the value of the work of the Ancient Monuments Boards as now constituted under the Act of 1913. Their appointment has been an entire success. The lines of improvement lie in their further development. Without a widespread organization, which must of course be honorary, there is a danger that the local importance of a monument may be overlooked. On this account some provision should be made, whether on the Boards or on Subsidiary Boards, for local representation.

The charge of the fabrics of all parochial churches belonging to the Establishment is in the hands of the Diocesan Bishops. No alterations or additions can legally be made to them without the grant of a faculty, a function entrusted by the Bishop to the Chancellor of the Diocese, who, sitting as a judge, decides all applications upon the evidence placed before him. So far as we can judge by results, it seems clear that even in the recent past when applications for the grant of faculties have been before a Chancellor's Court, the archæological and historical points of view have not always received adequate consideration.

We understand that advisory bodies have been or are being formed, now that the pressure due to the war is relieved, and we hope that they will be appointed in every diocese without delay. We consider that they should be made representative of the best opinion on matters of archæological, historical, and artistic interest, and that they should be given early and full information of the details of an application for a faculty, and be enabled to visit the church concerned. Provision should also be made to give the members of these bodies a definite status as assessors with the Chancellors on all such matters.

We cannot leave the question of the care of parish churches without expressing some anxiety about the possibility of loss of chattels, which are not technically "ornamenta" or "furniture" of the church, and thus are not, so far as we know, legally protected against removal. We may instance the case of old helmets and other pieces of armour, of which some have interesting historical associations, some have artistic beauty, and all deserve to be carefully scheduled, not only in the records of the parish, but also in the central records of the diocese and of the province.

The faculty system gives legal protection to all the parish churches in the kingdom. There is not, so far as we are aware, any legal protection for the cathedral churches, the most important of our national historical monuments. These are, in practice, under the sole control of the Dean and Chapter, who, as before stated, usually appoint an architect to be their official adviser. We think that the grave danger of unreservedly placing themselves in the hands of a single adviser would be met, if, in each province, the authorities of the church appointed a central body parallel in importance and in personal calibre to the Ancient Monuments Boards. Every question relating to cathedral churches should be referred to this body before any proposals affecting fabrics are put into force.

Should, however, no satisfactory scheme for the legal protection of the fabrics of cathedral churches be brought into operation by the authorities of the church, we recommend that provision should be made for the protection of these buildings by an appropriate extension of the powers of the Ancient Monuments Act.

It appears to us anomalous that the smallest parish church in the kingdom has a large measure of legal protection against the alienation of its movable possessions of one important class, namely, the "ornamenta" and "furniture," but, so far as we are informed, the largest cathedral church has no legal protection against the alienation of any class of such possessions. A list of all the movable possessions of historical and antiquarian value, other than "ornamenta" and "furniture," in all the cathedral churches of the kingdom, including their muniments, would be a document of very wide scope and of extraordinary interest. We venture to think that if a corresponding list were made of all the "ornamenta" and "furniture" of all the cathedral churches, including the disused Communion vessels as well as the Communion vessels in

general or partial use, the central authorities of the church might see reason to redress the anomaly, which becomes a source of anxiety when it is mentioned and understood.

We find another cause for anxiety in the lack of careful protection of objects in cathedral churches, which is illustrated by the condition of the accoutrements of the Black Prince in Canterbury Cathedral.

We are of opinion that the nation is not justified in neglecting to devise some scheme for the protection of secular buildings in use, seeing that they include many magnificent and historical specimens of our national monuments. In such cases above all, it is necessary that State action should take the direction of encouragement and assistance. (The committee here refer to ancient town dwellings, old manor houses, and village buildings, ancient colleges, grammar schools, almshouses, and hospitals.)

It has been borne in on us in the course of our deliberations that the appointment of a Commission of Fine Arts might be the best solution of the difficulties which face those who are charged with the administration of the Ancient Monuments Act.

Enquiries Answered

Floors for Dancing, etc.

L. C. writes: "I am erecting a music-hall, which is to be used alternatively as a dance hall. Can you tell me what is the best method to adopt with regard to the floor? The method of construction must allow for the removal of the chairs in the minimum of time to enable dancing to take place."

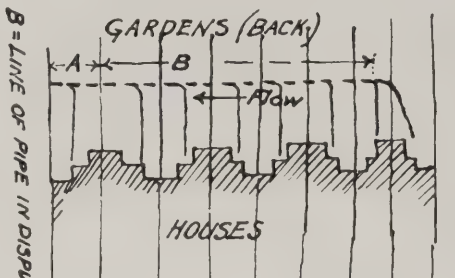
—The simpler these arrangements can be made the better. A plain wooden floor laid on joists and covered with narrow oak boards, secret nailed, cannot be improved upon and will last for years. Where a more showy effect is desired a flooring of parquetry or merely a border may be added. The chairs should not be of too elaborate a type if they are to be moved; they are best if made with fold-up seats, and with rods behind or under the seats to keep them in position. For the purposes of removal and refixing the seats should be all alike, so as to be interchangeable, and are best made with iron frames. I advise that a good firm of furnishing contractors should be consulted before any construction is commenced.

F.S.I.

Drain or Sewer?

H.G. writes: "Is the line of pipe marked B on accompanying plan a drain or a sewer? The eight houses are in the London area, and a plan deposited with the local authority in 1865 shows only the houses and drainage Nos. 1 to 7. The local authority, which has ordered the whole of the drains to be opened up and reconstructed, accept responsibility for the portion marked 'A' as they have no deposited plan consenting to the work."

—The definitions in the "Public Health Act, 1875," still hold good: "*Drain* means any drain of and used for the drainage of one building only, or premises within the same curtilage, and made merely for the purpose of communicating therefrom with a cesspool . . . or with a sewer into which the drainage of two or more buildings or premises occupied by different persons is conveyed.



"*Sewer* includes sewers and drains of every description except drains to which the word 'drain' interpreted as aforesaid applies. . . ." The houses Nos. 1 to 7 inclusive appear to be or to have originally been built by one person, and therefore may be fairly described as being "within the same curtilage." No. 8 was probably already in existence when the others were erected. I am of opinion that the length of pipes in the rear of Nos. 1 to 7 inclusive, marked "B" on the plan, is a "drain," and not a "sewer" within the meaning of the Acts. F.S.I.

Economical Cinema Planning.

E. D. writes: "I am designing a picture theatre to seat 1,200 people. Is a one- or two-storied building likely to be the cheaper in construction?"

—This depends very largely on the site. If it should be an expensive one a balcony is necessary, and this will, roughly speaking, double the seating capacity of the floor. Otherwise a single-storied building will be found more economical. H.B.

Professor Reilly on Toronto

Toronto is the most English in its sentiments of all the Canadian cities I visited, and the most American in its appearance. It has its group of sky-scrapers of varying height and design, as have most of the larger American towns. Its business streets have the same bustling appearance, while those along which car tracks run have the same pitfalls for the pedestrian, and would break the axle of any but an American motor-car.

As far as nature allows it, it is planned on the block system, but fortunately nature has interfered with this considerably. The town is intersected with large and deep ravines, some perhaps a quarter of a mile wide and filled with trees and shrubs. Across one I saw an excellent road bridge, of steel and concrete, and yet a thing of beauty. These winding ravines mean winding streets, a few of which are packed with residences for the rich. The rich men in Toronto—and there are obviously a great number of them—build large detached houses on pieces of land which we should think just big enough for a gardener's lodge and a potato patch. It must be remmebered, however, that in Canada, as in the States, it is bad form to enclose your land with a fence of any kind, so that the trim lawns are open to one another and to the road, and add to each other's size.

The impression that Toronto is a very prosperous place reaches you directly you escape from its depressing railway statio It is rapidly pulling itself down and re building itself in true American styl The curious thing is that the lake fro appears to play so little part in th city's amenities, present or future. He is a town which is practically situate on a sea—it takes two days for a steame to cross Lake Ontario from Toronto t Buffalo—and yet the mass of the tow seems to be unaware of the fact. Th lake is lined behind the wharves wit the usual dreary streets of warehouses varying shapes and sizes. After thi perhaps 300 yards back, are the two three main business streets, literall packed with banks.

Banks in the larger Canadian cities a much more imposing structures than the are in Lombard Street. They all conta on the ground floor a great banking ha of some symmetrical shape, offering fine opportunity to the architect. Mon without stint is lavished on this hall a its fittings. Lining it are the vario departmental private rooms, but not p vate at all in the English sense. Throu low glass screens you can see the pre dent in his holy of holies. Whether th is due to some theory of democracy, or f practical control, or to provide bett targets for the motor bandits one hea so much about, is not clear; but the l partitions serve the useful architectu function of giving scale and height to t hall itself.

In front of the partitions is the gre banking counter. It generally follo the shape of the hall, and is made marble with bronze screens over it, which is lavished a great wealth of f detail and craftsmanship. The cen of the hall has a few stately mar benches of Greek or Italian design. T whole effect is very dignified, forming advertisement to the stability of t bank, as the great new railway statio free from all posters, do to the railwa The mass of bank clerks is often ten twenty stories up, or even in anot building, with elaborate electrical c trivances for telegraphing balances to t bank counter without the knowledge the client standing at it. Toronto bank after bank of this sort, the major by the *doyen* of the architectural pro sion in Canada, Mr. Frank Darling.

Behind the business quarter lies nondescript mass of small proper held, I imagine, by speculators for a r and calling loudly for destruction. I pierced by two big streets, one of wh I was informed was fifty miles long one straight line—a trifle depressing would imagine—connecting town a town. The other is a fine wide thorou fare of normal length called Univers Avenue, which leads directly from heart of the business quarter to the fr of the Parliament buildings and to University, which lies around and beh them. It is rather striking that most important street in the town, w than Fifth Avenue, and the main m drive, should be called after the Uni sity, but in Toronto I was soon to cover that the University is conside by every one as a very important inst tion indeed. In this highly-commerc ized town it seems to play even a gre part than its sister universities do in much older town of Montreal.

The University Campus is a stretc park and grass of many acres in exte

e very heart of the city, midway be-
een the best business and residential
arters. It consists of a fine rolling
ce of land with the greenest grass
at I saw in Canada. It is intersected
th curving drives in which are placed
no regular order but not unpleasingly
e imposing blocks of University build-
gs. They follow the varying architec-
ral taste from Victorian times onwards,
d are mostly in grey stone or grey brick,
d of a scale and size rather staggering
our ideas.

The most interesting of the University
ildings is the latest, called Hart House.
is the gift of a manufacturer of agricul-
ral implements, and cost £500,000. In
pearance it is a pleasing two-storeyed
othic structure enclosing a beautiful
ass quadrangle. In purpose it is the
ost complete and composite clubhouse
ave ever seen for every kind of student
d staff activity. It was built across a
vine, and, though in appearance only
o storys, in parts it has an additional
ree below its general ground level. It
ntains, besides a dining hall with open
nber roof as big as that of Trinity
llege, Cambridge, innumerable smaller
brooms, a swimming pool, a gym-
sium with running track, racquets and
es courts, and, strangest of all, a com-
ete theatre with apron stage, circular
aven, and every modern equipment
the way of lighting, the whole thing
ing situated entirely below the level
the grass courtyard.

The work of the students in architec-
re is of a very high standard, and largely
complished under the teaching of an
l Liverpool student, Professor Adrian
rrington, who occupies one of the several professorships in architecture Toronto provides.

One left Toronto with the feeling that it was not only a city of singular achievement, but one which, with its wealth and energy and freedom from racial difficulties, held immense and unlimited possibilities, not only for the Empire, of which it is so naïvely proud, but for the world at large.

[Extracts from an article in a recent issue of *The Liverpool Daily Post and Mercury*.]

Concrete Gas Flues for Hotel Reconstruction

One of the principal difficulties confronting the architect, in cases where large numbers of extra rooms are formed by dividing up existing floor areas with partitions, is the economical provision of flues. In ordinary circumstances the new brick flues would need special means of support, and thus cause drastic structural alterations within the depth of the floors; and, further, the new stacks would involve much cutting and making good to the roofs.

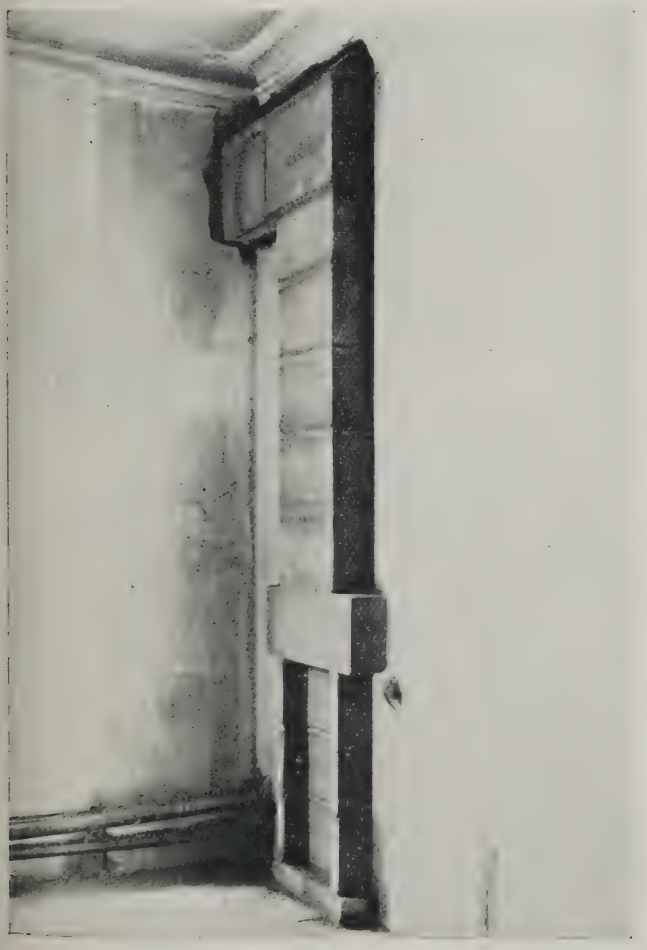
These points, it will be observed, are quite distinct from the larger question of the heavy outlay on the flues and stacks themselves, if built in the traditional manner. It is possible, however, to solve these constructional problems satisfactorily by installing gas fires and cast concrete flue-blocks. The use of the latter enables space-saving flues with inconspicuous terminals to be erected. These, while rendering cumbersome chimney breasts and expensive stacks quite needless, result in marked increases of floor area and cubic air space in each room.

These advantages are particularly apparent in reconstruction work, and such an instance has recently occurred during the extensive alterations at the Belgravia Hotel—opposite Victoria Station—which have been executed for Messrs. Davies and Cross, from the designs and under the supervision of Mr. Hands, the architect.

In this case the former very large rooms have been sub-divided by the erection of breeze partitions into many additional bedrooms, the heating of which became a serious consideration. As, however, the owners had made up their minds to install gas fires in every room, the opportunity presented itself of carrying off the products of combustion by employing special flue-blocks. The system ultimately selected was the Nautilus cast concrete flue system, which has been already described and illustrated in this journal (see issues for March 20, 1920, and March 16, 1921).

Reference to the first illustration will show that the flues, which are built against the existing cross-wall, rest upon a concrete hearth laid upon the present floor. The flue was then conducted with a bend to the external wall, and finished with an anti-down draught concrete terminal. In the second illustration an indication is given of the appearance presented by the completed fireplace, which consists of fibrous plaster surrounded by an enriched moulding, and is surmounted by a moulded deal shelf.

Some 250 fires have been fixed by this method, and the results are, we understand, very satisfactory.





APPLICATION OF CAST CONCRETE GAS-FLUE BLOCKS TO A RECONSTRUCTED LONDON HOTEL.

Competition News

The New "Daily Mail" Competition.

As briefly announced in our last issue, "The Daily Mail" has instituted a second Labour-Saving House Competition, and offers prizes of £300, £125, and £75 for the best designs submitted. The accompanying illustration shows the proposed site for the house, which will be erected at Welwyn Garden City, Herts, to the plans of the first prize-winning design. A booklet issued by "The Daily Mail" gives the full conditions of entry, together with a number of helpful suggestions for the consideration of competitors. Mr. George Henry, in a pathetic "Prefatory Protest," gives a truly heart-rending account of the miseries endured by himself and family in their typical middle-class abode, the kind of house that cost about £1,200 at pre-war rate, and now would cost anything from £2,500. He describes "Tyrant House" in some detail, and dwells upon the needless expenditure of time and energy necessitated by its faults of construction and planning.

Because the builder wanted to make the most of his ground, he says, the house is built on four floors and has a basement, and from the front garden a flight of steep steps runs to the entrance on the first floor. It takes a woman half-an-hour to clean these steps every morning. Kitchen and scullery adjoin in the basement, and the scullery sink is thoughtfully placed just as distant as space would allow from the pantry and cooking stove. In every room cornices and ceilings are elaborately "enriched," so that dust shall not be unduly inconvenienced in finding secure resting places.

Each room has a fire-place which involves dirt, dust, and labour, and voraciously consumes coal at £3 4s. a ton, and the kitchen range gives hot water to bath and scullery only after two hours' consumption of the aforesaid expensive fuel.

There is greater need than ever for labour-saving homes for professional men and their families, and it remains for the architect to show us the houses and make practical response to the urgent appeal of a long-suffering class of people.

"The Daily Mail" inaugurated the first Labour-Saving House Competition for architects in connection with "The Daily Mail" Ideal Home Exhibition of 1920. Its object was to stimulate interest in a department of home-making which hitherto had been deplorably neglected—that of efficient planning to save useless human effort and expense.

The labour-saving question is still too important to leave to incoherent appeal, and "The Daily Mail" offers practical encouragement to the new spirit in home-architecture, knowing that it is serving a public purpose, and giving the architect a great opportunity to see his ideas take material form.

The economics of labour-saving could not be more clearly put than in the following extract from an article by Mr. R. W. James, M.I.M.E., A.M.I.C.E., who was Chairman of the Assessors in connection with the 1920 "Daily Mail" Labour-Saving House Competition.

He wrote: "Money spent to produce the ideal labour-saving home is an investment, not an expense. A house so designed that it can be run by one servant instead of two will probably mean a saving of wages, cost of food, rent, etc., of £150 per annum. The cumulative effect of the introduction of all possible methods of labour-saving should be to reduce the total number of servants necessary, and to improve the working conditions of those employed. The ultimate object to aim at is the evolution of a servantless house which does not impose slavery upon its occupier."

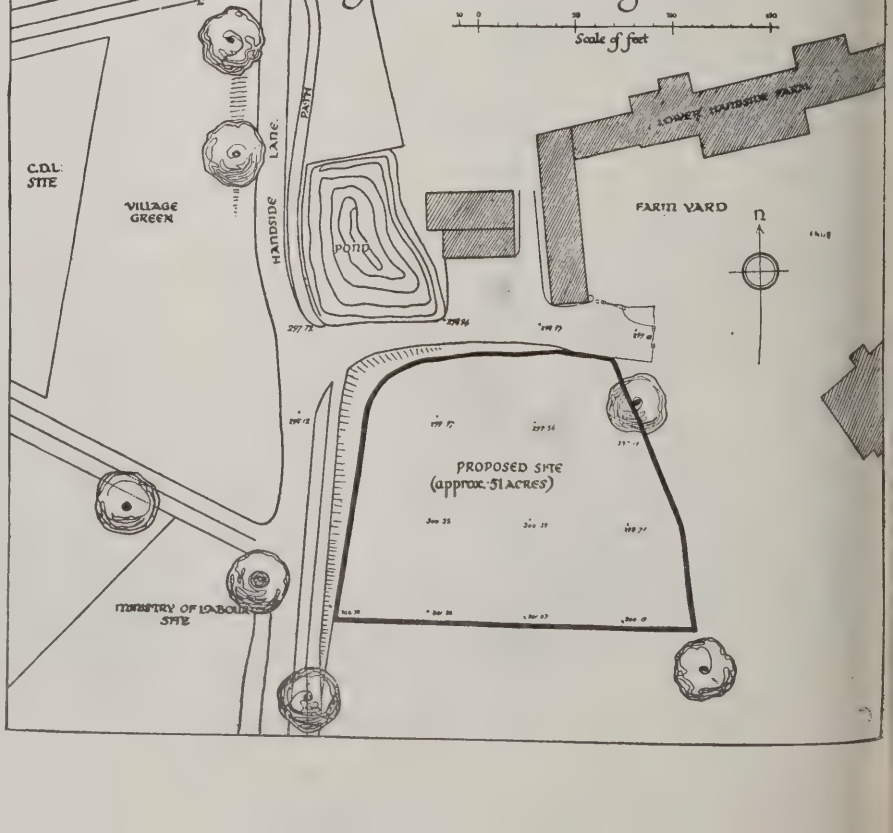
Entrants for the competition are invited to consider a number of particulars and suggestions, which are not, however, to be read as conditions in the competition. It is considered that floors on different elevations on the same general level should be avoided as much as possible, to reduce the danger of accident from falls. There should be no angled corners, either at the junction of the floor and wall, or elsewhere in the house, and no moulding which can harbour dust. Panelling should be provided with semi-circular moulding only. Floors and stairs should be germ and damp-proof, warm and silent. With due regard to economy, suggestions for some suitable material are invited. Competitors should consider the feasibility of providing stairs of concrete, or some similar material, with a linoleum surface, and a hand-rail of rounded form, which it may be feasible to support by a thin wall (preferably of transparent material) closed in solid to the tread of the stairs, instead of suspended on a number of banisters. Stairways should have a width and direction to permit of the easiest possible carriage up and down of furniture and luggage with the least possible menace to the surfaces of walls and han rails.

Doors should be planned to open f back against a wall at right-angles, a in the case of private rooms, such as be rooms, placed to open without undu exposing the interior of the room. Slidi doors may, in many cases, be better th swinging doors, this in relation to exi corridors, floor space, and the difficulti of specific requirements. Windo should be sufficiently high to ensu proper ventilation and sufficient ligh and should be capable of being clean inside and out from inside the house.

Rooms should be planned having r gard to the position and dimensions of t furniture contained in them. The po tion of the dressing-table in relation to t window light, the position of the bed beds in relation to door-swings and wi dow positions, and closet or wardro positions and doors, should be studi with much attention. Special attenti should be paid to the question of buil in furniture, always remembering t objection to dust-harbouring forms decoration. All bell and telephone wire gas, water pipes, and electric light pow cables should be readily accessible.

Much attention should be given to t best methods and implements for heatin and cooking—this on the score of econom in cost and of efficiency, and of econom of time and labour.

Trolley wagons or tables for servi food, or moving dishes and supplies, slides or chutes, or communicating ape tures, should be considered, and cookin stoves and work tables should be place at a height to render stooping unnecessar The refrigerator is not generally reco nized in this country as a labour-savi device, but to the extent that it facilitat



eparation and cooking of food in quantities and at less frequent uls than is possible without its aid, sibilities should not be lost sight of. petitors are invited to suggest utes for such items as brass taps, plates on doors, handles, knockers, tc., and the inclusion of labour- equipment in the shape of machin- c., need not be prejudiced by con- ions of first cost. It is quite cer- nat when the public demand for -saving apparatus is sufficiently nt and clearly expressed, the manu- rs concerned will follow the exam- t by the supply companies in the gas stoves, and provide them on erred payment or hire system.

house is to have the following nodation, which is to be provided o floors: Dining-room, drawing- den or study, kitchen, five or six ms, bathroom. There should also naid's sitting-room adjoining the n. Two w.c.'s should be provided ground floor, one of which should the den or study. A w.c. entirely e from the bathroom should be ed on the first floor. The house e suited to the suburbs of a large r city, and its approximate cost 2,500.

gh architectural standard of design cted, but each design will first be red from the point of view of saving. An architect sending one of his own can collaborate with r (not an architect) in another

questions must be addressed to retary, Labour-Saving Home Com- n, 130 Fleet Street, London, E.C.4, efore September 24. These ques- will not be answered individually, l be printed with answers and cir- to all competitors who ask for

closing date for receiving drawings mber 30.

Other Competitions Open.

r competitions open are for designs Auckland War Memorial (Feb 28); spital buildings at Cairo (Oct. 3), e Birmingham Hall of Memory. rticulars see our last issue.

B.C.G.A. Annual Conference

tenth annual conference of the Commercial Gas Association will l in the Royal Technical College, Street, Glasgow, on September 27 , under the presidency of Mr. D. Watson, M.A., LL.B., President National Gas Council and Governor Gas Light and Coke Company, . The delegates will be welcomed Rt. Hon. the Lord Provost of the Glasgow, Mr. Thomas Paxton, J.P., ll also hold a reception. During ference Mr. D. Milne Watson will his presidential address, and of vital interest to the gas industry submitted for discussion. Append- list of the proceedings:—

lay, September 27—10.45, Assem- Conference; 11.0, Address of wel- y the Rt. Hon. the Lord Provost ity of Glasgow (Mr. Thomas Pax- P.); 11.30, Presidential address by Mr. D. Milne Watson, M.A., LL.B.; 12.20, Presentation of annual report and statement of accounts—with a review of the ten years' work of the Association, by the Executive Chairman, Mr. F. W. Goodenough; 12.40, Announcement of election of president and auditors for ensuing year; 12.55, Adjournment; 1.0, Luncheon to the president, vice-president, members and visitors, by the Rt. Hon. the Lord Provost, Magistrates, and Corporation of the City of Glasgow, in the Banquetting Hall, City Chambers, George Square, Glasgow. Public conference: 3.20 for 3.30, Hygiene and smoke abatement session (open to visitors). Subject for discussion, "Gas in Relation to Hygiene and Smoke Abatement." Opening remarks by the President (Mr. D. Milne Watson, M.A., LL.B.); Papers—"The Hygiene of Gas Heating." by Mr. John W. McLusky, A.M.I.Mech.Engrs. (engineer and general manager City of Glasgow Gas Department); "The Prevention of Smoke Pollution," by Mr. J. S. Owens, M.D., A.M.Inst.C.E., F.G.S., F.R.S.I. (superintendent, Advisory Committee on Atmospheric Pollution). Discussion (open to visitors); 5.0, Adjournment, Tea served; 7.0, Reception by the Rt. Hon. the Lord Provost of the City of Glasgow; Coffee, Music; 7,45, Lecture by Mr. C. W. Saleeby, M.D., F.R.S. (Edin.), on "Life and Light"; 9.0, Light Refreshments; Music (evening dress optional).

Wednesday, September 28 — Public Conference: 10.30, Industrial economy session (open to visitors). Subject for discussion, "Industrial Uses of Coal Gas." Opening remarks by the President Mr. D. Milne Watson, M.A., LL.B. Papers—"Gaseous Fuel in the Shipbuilding World," by Mr. George Keillor, engineer and manager, Greenock Corporation Gas Department; "A Thousand and One Uses for Gas," by Mr. Samuel Milne, engineer and manager, Aberdeen Corporation Gas Department; "Production, Distribution and uses of Gas Coke," by Mr. E. W. L. Nicol, fuel expert and engineer to the London Coke Committee. Discussion (open to visitors); 1.0, Adjournment; 1.30, Luncheon by the President, Vice-Presidents and Members of the Association to the Rt. Hon. the Lord Provost, Magistrates, and Gas Committee of the City of Glasgow; 3.30, Visit to the Corporation of Glasgow Ideal Homes Exhibition; 4.30, Tea, on the invitation of the Exhibition Organizing Committee. Close of Conference.

Door Furniture Designs

Messrs. Robert Adams, of 3 and 5 Emerald Street, Holborn, W.C., have sent us two illustrated leaflets, one of which depicts a goodly array of the firm's exclusive designs for French ornamental rim locks. Every period of decorative work is represented, and staples and butt hinges, with brass ornamental knuckles and knobs can be obtained *en suite*. Patent self-sustaining fanlight openers, closers, and adjusters are illustrated on the second leaflet, together with the X-it panic egress bolt for swing doors. Various types of floor spring hinges are strongly recommended, and can be obtained with or without adjustable shoes and top centres.

New Inventions

Patent Applications.

23220.—Anderson, T.—Means for binding hollow walls. September 1.

22905.—Marks, E. C. R.—Building blocks. August 29.

23365.—Matthews, A. C.—Concrete, &c., building slabs. September 2.

23095.—Westaway, J. C.—Roofs, walls, etc. August 31.

Specifications Published.

168082.—Felt, E. J.—Plasters, piers, buttresses, or the like, and tiles or blocks therefor.

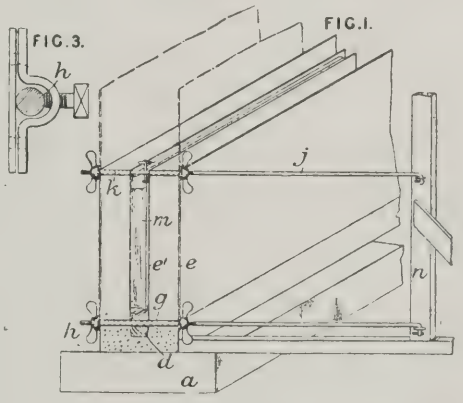
168168.—Walker, A.—Building blocks.

168200.—Een, J. B.—Wooden floor sections.

168226.—William, S., and Walters, W. D. —Frames for windows, doors, casements, and the like.

Abstract Published.

166424.—Moulding concrete. — Horton, A. S., Cranmore, Falconer Road, Bushey, Hertfordshire. — The shuttering *e* for a wall is erected on a foundation *a* and separated to the correct distance apart by tubes *g* at top and bottom through which pass rods *h* and *j* secured to uprights *n* which are independently braced and secured away from the shuttering. The rods may have hook-and-eye connections with the uprights or an adjustable connection as shown in Fig. 3, and are adapted to support the scaffolding for the workmen. In the case of hollow walls, internal shuttering e^1 is employed, a removable wooden bar *d* indicating the setting of the core. Both the internal and external shuttering may be stiffened on their backs by angles, and in the case of the internal shuttering these angles are adapted to support vertically pivoted distancing members *m*, which are caused to lie parallel to the shuttering for removal of the same. The internal shuttering is also provided with inturned ends. For hollow walls, the top distancing-tube for the outer shuttering is replaced by two short-length tubes *k* which are replaced after completion of the course by another long tube which remains in the wall as reinforcement.



The above particulars are specially prepared by Messrs. Rayner & Co., Regd. Patent Agents, of 5 Chancery Lane, London, from whom readers of this journal may obtain all information free relating to patents, trade marks, and designs. Messrs. Rayner & Co. will obtain printed copies of the published specifications and forward on post free for the official price of 1/- each.

The Week's News

Westcliffe House, Ramsgate.

Ramsgate Corporation are to purchase Westcliffe House (in which at one time Queen Victoria lived) and all the land belonging to it on the western sea front for £50,000.

Blackpool Housing Schemes.

During the past eighteen months the Corporation have approved plans for over 1,000 houses to be built by private enterprise, while close upon 400 more houses are approaching completion in connection with the municipal housing scheme.

Finsbury War Memorial.

The Mayor of Finsbury (Sir Henry B. Barton) has unveiled in Spa Green Gardens, Rosebery Avenue, a memorial to the men of Finsbury who fell in the war. The memorial is the work of Mr. Thomas Rudge.

Chiswick War Memorial.

Homes of Rest for Chiswick Disabled Soldiers are to be built at a cost of about £8,000 on land given by the Duke of Devonshire, and an obelisk in Cornish granite is to be erected at Turnham Green as Chiswick's War Memorial.

New Council Houses at Whitburn.

Thirty-seven houses erected by South Shields Rural District Council have been completed, and are ready for occupation. An additional batch of forty will be completed within the next fortnight, and the Council contemplate erecting altogether 750 houses in different parts of the area under their jurisdiction.

Condition of Chester Cathedral.

The Dean of Chester states that only by making a big effort will Chester Cathedral be restored. There are ominous signs and symptoms—big cracks and deteriorating stone. The bells can no longer be rung, as the tower will not stand the strain. The north wall of the nave is in a bad condition.

"The Joy of the Working."

The east window of the Church of St. Katharine Cree, Leadenhall Street, which was damaged in a day air raid in July 1917, has now been restored. There are inscriptions from 1703 downwards, indicating when it was examined and cleaned. One inscription runs: "Thomas Jordan cleaned this window, and 'damn the job,' I say, 1815."

Ten Years to Build Bridge.

It is proposed to invite tenders for the erection of the "North Shore Bridge," spanning Sydney Harbour. The bridge will carry a railway and tramway, as well as ordinary vehicular and pedestrian traffic, and will, it has been estimated, take ten years to complete. It is understood that the closing date for tenders will be September, 1922.

Dudley Housing Schemes.

The Housing and Town Planning Committee recommend that the Housing Director make application to the Ministry of Health for approval to the erection of further houses in the borough, in view of the necessary land and bricks having been purchased, and the roads constructed.

More Houses for Middlesbrough.

Sir Charles Ruthen has visited the housing sites in Middlesbrough, and afterwards had an interview with the sub-committee which met him some time ago on the need for more houses. The result of these deliberations was that consent was obtained for the erection of a limited number of extra houses if the prices are suitable, and an effort will be made to get the number increased.

Balby Cinema.

Doncaster's first suburban cinema was recently opened. The front of the new picture-house is of artificial stone, pebble-dashed, and has stone arches. The hall is 99 by 39 ft., and is decorated in fibrous plaster. All the seats are on the ground level, and are widely set apart. The floor has a pitch of one in ten, and there is seating accommodation for about 700 people. The architect is Mr. P. A. Hinchliffe, F.R.I.B.A., of Barnsley.

"Vacuum Flask" Building.

A new building to be put up in St. Boniface, Manitoba, is authorized by the building inspector to be constructed "like a vacuum flask." It is really to be a regular building enclosed in an outer shell. All the walls of the new structure are to be double, thus providing an interlining of air which helps to maintain the heat inside and keep out the cold, just on the same principle as adopted in constructing a vacuum flask.

Manchester Town Planning.

The T.C. has adopted resolutions passed by the Building and Bridges Committee concurring in the appointment of a joint committee to be called "The Manchester and District Joint Town-Planning Advisory Committee." The committee is to advise on the promotion, co-ordination, and linking up of town-planning schemes within a fifteen-mile radius of St. Ann's Square, Manchester, and, if considered necessary, to prepare in broad outline a regional plan for the area.

Royal Institute of Architects of Ireland.

The Council of the Royal Institute of Architects of Ireland have forwarded to the Council of the Dublin Industrial Development Association suggestions with regard to the adoption of a standard stone for building. The idea is that, by having stone supplied in regular shapes and sizes, varying sufficiently to prevent an inartistic uniformity, it would be possible to have stone stocked by merchants just as bricks are. The matter has been referred to the Quarry Owners' Committee.

Building Projects for Leeds.

The Leeds Parks Committee recommended (1) that tenders should be obtained for a stone-built clubhouse at Roundhay; (2) that further consideration of the question of a new palm-house at Cross Flatts Park should be deferred for three months; and (3) that tenders should be obtained for the erection of a new office at Hunslet Cemetery. These recommendations have been adopted, an purchase approved of an approx area of 825 square yards of land f widening of Mill Green, Halbeck, f sum of £1,000.

Co-partnership Housing.

Success has attended an experim co-partnership housing in Surrey, municipal enterprise has come t assistance of private effort. The Co tion of Guildford assisted at the inc of the Onslow garden village by scribing a capital of £20,000, and n Public Works Loan Commissio authorized a loan to the socie £414,000. It was originally intend erect 500 houses, and 60 of these been built, 50 being occupied by p who between them have subs £10,000, an average of £200 per ho

Chicago Building Restrictions.

The referee in the Chicago bu trades dispute has made a ser awards under which wages of all cl of workers are reduced 10 to 30 pe according to grade. Many restri imposed by the labour unions are als demned as leading to waste and ciency. The principal restriction limitation hitherto imposed by the on the use of labour-saving mach In addition, the referee decided that a sufficient number of union men c be obtained, non-union men ma employed; also that all restrictions daily output of individual workers be removed.

New Tees-Side Works.

Synthetic Ammonia and Nitrates a company formed under the auspi Messrs. Brunner, Mond & Co., Lt establishing new works on the north of the Tees at Billingham. Thes extend over an area of about 850 a land with a river frontage of 1,650 lineal feet, and will be used f manufacture and production of amm nitrates, and various by-products. erection of dwelling-houses on a large scale is also in progress for t commodation of the workmen and families. Recreation fields will even be laid out for the use of the emp and on the completion of the work ployment will be afforded for s thousands of workmen.

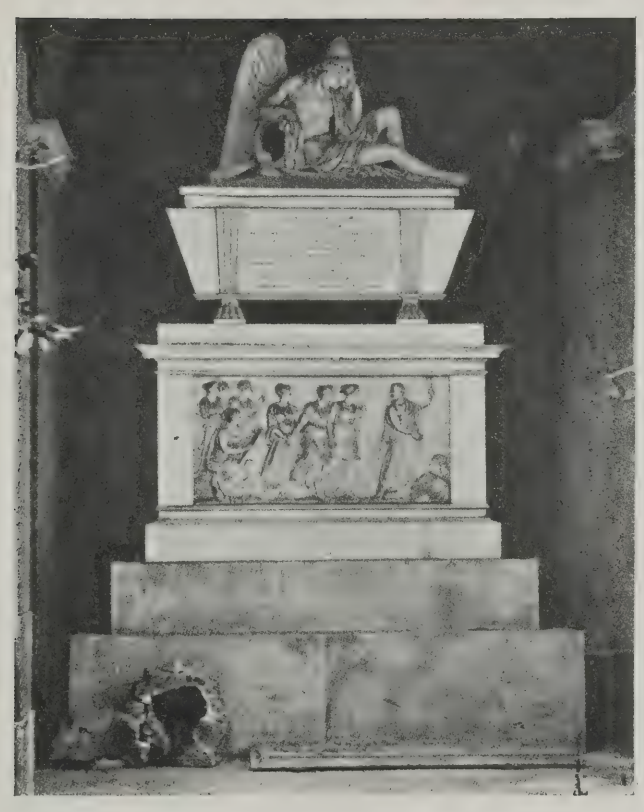
Royal Warwickshire's Memorial.

At the west end of the nave of St. M Church, Warwick, opposite the south will be placed the memorial cenota the memory of officers, warrant o non-commissioned officers, and m the Royal Warwickshire Regiment. memorial, which is of simple desi constructed of white alabaster, has been specially selected from quarries at Tutbery in Staffordshir takes the form of a rectangular cen raised upon a splayed plinth with r inlay and inscriptions. It stands a pavement of black and white m on which is inscribed the motto, Name Liveth for Evermore." Two of the monument have finely-sculp angel figures in bas-relief.

ednesday, September 28, 1921. Vol. LIV. No. 1395

THE ARCHITECTS' JOURNAL & Architectural Engineer

With which is incorporated "The Builders' Journal"



A MONUMENT IN A COUNTRY CHURCH.

27-29 Tothill Street, Westminster, S.W.1.

Current Architecture. 113.—Offices of Christ's Hospital, London: Oak Niche for Edward VI Statue

Arthur Blomfield, M.A., F.R.I.B.A., Architect



When the old offices of Christ's Hospital in Newgate Street, London, were abandoned and rebuilt in Great Tower Street, this curious statue of Edward VI was taken thither. Carved out of an oak tree, whose natural shape is visible at the back of the figure, the statue, which was bequeathed to the Hospital in 1676, now stands outside the Court Room, and has been provided with an exquisitely appropriate setting.

THE

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o Revive Public Confidence in Building

THE interesting discussion in our pages on "How to Educate the Public" has this week taken a new direction. A fresh and vigorous hare has been started. From the outset, when (in our for August 3) Mr. Welford wrote the article which has cted so much attention, the treatment of the subject been mainly practical, and has been kept in that key ughout the discussion. This week's letters on the ct are in much the same utilitarian vein, but among which we are able to print in our present issue there e from an eminent contractor who directs attention to tter that he holds to be of still greater practical interest of much more urgent importance.

ir correspondent, while fully appreciating the points forward respectively by Mr. Welford and by the rs who have discussed in our pages the subject of his le, nevertheless feels that for the moment a more vital ion (and one that is of primary importance) than w to Educate the Public" is "How to Revive Confi- in Building." Undoubtedly the two themes run lel and in the same direction, if not with equal steps, he respective issues are cognate, if not identical, and be quite conveniently discussed together. Our present se, however, is to commend to the earnest considera- of architects the points raised in Mr. Hill's letter.

s keynote is that "trade cannot revive until confidence established"—confidence, that is, in the *bona fides* of uilding industry, and in the wisdom of building now id of postponing the work indefinitely. Too evidently confidence is generally lacking, for architects all over ountry confirm only too emphatically the prevalent ts of an unprecedented dearth of commissions for small —for minor building operations, and for alterations, s, and decoration. Large contracts are not alarmingly , but minor work is being commissioned very slowly, his disparity is not only remarkable, but regrettable urious grounds. It shows lack of enterprise among persons whose former steady flow of commissions was to keep architects sufficiently busy with small work ep office staffs diligent, and the falling off—not to he absolute dearth of such work—is rapidly and ly augmenting the numbers of unemployed.

unparalleled supineness of should-be clients has a s effect in increasing the difficulty of bringing down st of building. They should be informed—for they t seem to realize it sufficiently—that substantial nies may be effected where large contracts and r jobs proceed *pari passu* under the same contrac- The fitting-in of one job with another (which is not so readily arranged between two large jobs as between nd small jobs) is, when skilfully arranged, obviously ly economical manœuvring of the forces at command. es time and money, reduces the cost of building ions, and has a particularly beneficent effect in preventing unemployment. Time and materials are economized, the work on both types of job is expedited, and the operatives are not cast adrift as soon as their work on one job is finished, but are transferred from one job to another. At the present moment, for want of the minor contracts on which they could be profitably kept going, operatives in various departments are not taken on until their particular class of work on the large contract is ready for them, and they are perforce dismissed when that work is finished, unless (as it occasionally happens) the contractor is sufficiently humane and sufficiently wealthy to keep them on at a loss, as, to our certain knowledge, some contractors actually do; but naturally there are limits beyond which the most benevolent-minded employers cannot go. A firm cannot long continue to thrive on its losses.

The effect on architects of this prolonged inactivity is that many members of the profession are hard put to it to make a bare living. Hence the bitter complaints that are appearing in the public press, in which parents and guardians and schoolmasters are solemnly warned that the profession is overcrowded, with disastrous results to its members.

Why is the client hesitating to put in hand the long overdue repairs, alterations, decorative work? Why is the business man reluctant to carry through his schemes of alteration or reconstruction, and (less conspicuously) the factory owner afraid to make a start on his projected new workshops? His timorousness is not solely due to high prices. He should surely know that they are not likely to become substantially lower until the Greek Kalends. Other and more subtle influences are affecting him. The fact is that he knows at once too much and too little of the internal economy of the building industry. His half-knowledge leads him to form exasperatingly false conclusions.

At present the "building owner"—especially the small man—is qualifying to be nearly the most suspicious man on earth, with the least possible justification for his "wild surmise." He is obsessed with groundless fears, and his obstinate determination to wait is defeating his object by deferring the return of building costs to normal; for that is an inevitable effect of his hesitancy. If, however, he would make up his mind to put in work in hand at once, he would, we are sure, have but little difficulty in finding contractors who, partly from humane and patriotic motives—that is to say, with the object of protecting deserving men from unemployment and privation—and partly with the less disinterested motive of keeping together valuable staffs of skilled workers, would undertake minor work at little or nothing beyond its actual cost to them. To start now is advantageous all round. To "keep on doing nothing" is to imperil the client's own business interests, and to intensify the economic evils and the personal miseries of unemployment. We hope and

expect to see this matter keenly and thoroughly discussed from various points of view, for it is of vital importance, not only to the Profession and to industry of building, but also to the building public.

Manchester's Royal Exchange

On October 8, Manchester will be a proud city. On that date the King and Queen will open the extension of the Royal Exchange, where they will be received in due form by Sir Henry Haworth and his fellow-directors. "The outstanding architectural feature'—surely not a very felicitous term—is, it is claimed, "that the floor of the Exchange proper, which is one story above the street, extends in an unbroken level over nearly the whole of an acre and three-quarters, the only deductions from the total superfices being those required for the external walls and staircases." Rather a confused narrative; but we see no reason for disputing the very definite claim that "Lancashire now possesses the world's greatest place of assembly of traders for direct business transactions." American business men will turn green with envy at the prodigious record.

A Diocese Destitute of Buildings

Coventry also has its Palace Yard. It is "a dignified courtyard, surrounded by buildings ranging from the fifteenth to the seventeenth century"; and the Bishop of Coventry, who by good hap is a Fellow of the Society of Antiquaries, has his eye on these buildings, which together constitute a rare example of a residence of merchants of those times. True the street front was rebuilt in Georgian days, but the buildings inside the courtyard have escaped renovation so thoroughly that the Bishop is asking for generous donations towards setting it in order and clearing off a mortgage on it. He wants to make it the headquarters of the Diocese of Coventry, which is at present destitute of offices, registry, and meeting-rooms. He longs to preserve "the interesting gables with broad bay windows, the early bargeboards, which may be fifteenth century, and the beautiful leadwork for rainstacks and gutters, on which are the Hopkins' initials and date 1656." Mr. William Weir, the architect for several sympathetic restorations, is advocating, in expository addresses, the acquisition of Palace Yard, Coventry, by the Diocese.

Autumn Activity

The weather, phenomenally fine for this time of year, has in many instances protracted the "summer" holidays by several days, or even weeks; but there are signs that business men are rapidly, if reluctantly, resuming their normal activities, and it will not be long before the professional classes follow. The resumption will be very welcome to architects, who, having suffered severely from the rigours of various kinds of drought, natural and artificial, irremediable and preventable, will regard joyously the commissions that must immediately begin to trickle in. As it is always the busiest person who commands most leisure, it may be confidently expected that the autumn meetings of the R.I.B.A. and of the A.A. will be very fully attended, and that the weighty questions—for example, unity, registration, education—will be debated with all the keenness that their vital importance deserves. Another seasonable portent is the arrival, thick and fast as autumn leaves in Vallombrosa, of prospectuses relating to the new educational session. These will receive attention in our pages in due course.

The Burden of Road Maintenance

To prevent misunderstandings, Artemus Ward was wont to label his utterances with "This is a joke," or "This is writ sarcastic," or "Please laugh here." Some such expedient might have been usefully adopted by the Sevenoaks Rural District Councillor who said, the other day, that "the only logical way of dealing with road traffic was to introduce the toll-gate system." Even the toll-gate system would not exhaust the logical ways, one of which, of course, would be to exact from road-users, rather than from landowners and farmers, the cost of maintaining country a district roads, but certainly not by the irritating method stopping motors at a toll-gate. The councillor, however, w on the track of a logical method of apportioning the cost, it was when tolls were abolished that road-users ceased contribute their fair share towards upkeep, and the coun inhabitants were oppressed with responsibilities that shou have been placed on other shoulders. As the Sevenoa R.D.C. justly complain, thus is caused not only a gra injustice, but an insupportable burden. Now that t ubiquitous char-à-banc has transferred so much traffic fr the rails to the roads, the need for a much more equitab adjustment of the expenses of road-mending has reach a critical stage, and reform should be imminent. Ru electors should make road-maintenance a test question the impending general election.

Technical Colleges

Architects will have noticed, with much interest and wi rather mixed feelings, the widely published statement th there is being founded what some of the newspapers ha loosely termed "a printers' university." The project institution may ultimately develop into that; but at prese the project is for a Central School of Printing that shall affiliated to London University, the students being enco aged to study for degrees. The St. Bride Institute buildi off Fleet Street, having been outgrown, premises are be taken in Stamford Street, on the other side of Blackfri Bridge. These are to be occupied temporarily, the am tion of the printers soaring to the erection of a special bui ing, and a fine one. There is but little doubt that they v soon achieve this object, *esprit de corps* and dogged det mination, rather than opulence, having already secured t printing and allied craftsmen a very respectable reputati as builders. With little or much extraneous help they ha reared the St. Bride Foundation Institute beneath t shadow of Wren's most famous church tower; the printe almshouses at Wood Green; the Caxton Convalescent Ho at Limpsfield in Surrey; similar institutions at St. M garet's Bay and elsewhere; the London Society of Co positors' Building in St. Bride Street; and the printe operatives' building in Blackfriars Road. This is rathe proud record for a comparatively small body of by no mea wealthy men (but it must not be overlooked that rich ne paper proprietors have been very generous), and it sho awaken the envy and emulation of architects and the bui ing industry generally, whose buildings, on the whole, hardly commensurate with the numbers engaged in it.

An Elizabethan Playhouse Revival

Theatre-design seems to be in a state of flux. During past few years this class of building has been, more than a other, the subject of more or less daring experiment. T latest and most striking adventure of the kind is the Modd market Theatre at Norwich, for which it is claimed tha is the first building since the Commonwealth "to be de itely constructed in England with an apron stage s rounded and backed by a gallery, so that the plays Shakespeare can be given upon the stage for which he wrot This rather doubtful advantage (valuable only, it wo seem, to the student of the Elizabethan drama), is, it m be supposed, quite counterbalanced by the primitive arran ments which leap back from the elaboration and luxuriousn of the theatre of to-day to the crude simplicity and c comfort of, say, the old Fortune, of which Mr. Walter Godfrey made such a scholarly—because to some ext ingeniously conjectural, besides involving painstaking search—reconstruction in 1907. His drawings of it w afterwards published in the ARCHITECTURAL REVIEW. Moddermarket Theatre has been constructed by Capt Noel Paul, under the supervision of Mr. Nugent Mon "Nature brings not back the Mastodon, nor we those time and while the Moddermarket stage is not at all likely revolutionize theatre design, the revival of its anti style is certainly interesting, and to some extent archi turally instructive.

What of a Twentieth Century Tradition?

By CROSSLEY DAVIES

WILL to-day be known to-morrow? Will the Georgian age have its distinct note in the architectural arts like the Elizabethan, the Tudor, the Queen Anne, the first George's, even the Victorian? Have we anything to say and, if have, are we saying it? Are we living on the dead , or carving our own way in the living present? Will one deny that this seems an age without an aim, and it may well be without a name, too?

hese are not idle questions. They are serious and ching. If they make people think they will perchance to lead the way to a change that has long been over-

In architecture itself, despite some notable work, e is as yet no real attempt to hand down to the coming s any lasting memorial to the spirit of this twentieth ury. In decoration and in furniture we are still at a century behind, and when Art keeps both feet in grave like this it is high time to call for first-aid and doctor.

Our Characterless Art

ngland has very little to show for all her twentieth- ury activity. What claim can she make to fame when buildings are planned on ancient lines, her decorations ed from the masterpieces of earlier days, and her fur- re modelled on the designs of centuries ago? Even Victorian age had its antimacassars, its floral wall- rs, its white ceilings, and its velvet and plush uphol- . Bad as they were, at least they stood for certain ities that stamped the age with an individuality all its

What individuality matters to-day? Will a Queen e dining-room, a Tudor hall, a Sheraton bedroom, or Adam drawing-room interpret the character of our ?

Sanitation and the Skyscraper

ave we forgotten art in our zeal for sanitation? It is that no age in history has triumphed over the problems alth in housing as we have done. It is certainly matter ride that in this direction we lead the world. Yet are is all? Has not the architect, in his proper care for truction, comfort, and convenience, overlooked the that he is, too, an artist? On the Continent they have evolving new styles in architecture. These are quite heavy and rotund, but there is a real effort here to e a new note, and for that they deserve all praise. In rica they have produced the skyscraper. In some , at least, these buildings are wonderfully fine. Such did structures as the giant Woolworth building in York are triumphs of skill and taste. Not that we the skyscraper too well; but, as an attempt to revive tecture, to make it keep pace with the changing ; it deserves full recognition.

Tradition, Inherited and Bequeathed

ch age has its own peculiar need. It strikes, too, its special note; and it has been the glory of architecture e past that it has never failed to meet that need and rike that note. To say that in England to-day there ther new need nor new note would be absurd. To say architecture has met the one and struck the other l be, as yet, to go beyond the facts.

will be urged, of course, that to desert the past is to y the future. It will be argued that tradition is ng, and that by fidelity to it alone can art survive. is true, but it is not the whole truth. The skyscraper, e sense, is outside tradition. Since the days of Babel there has been nothing like it. Yet even here the American architect has not made the fatal error of assuming that tradition has no force. It has. Even those who aim to rise above it are bound by it. They may ignore it, but they cannot escape it. After all it is the essence of human wisdom, crystallized in the crucible of human experience. But even tradition moves forward. It grows through the ages. The sensation of to-day may be the tradition of to-morrow. Yet ever it moves in a well-defined orbit; its line of progress is marked out beforehand, and it is only along these traditional lines that any real progress may be made.

What tradition shall we leave behind us? Happily the terrible domestic tradition of slums and tenements will not remain for long. In this matter it is not true that, architecturally speaking, "the evil that men do lives after them." We shall hand on to to-morrow a few fine buildings, —almost all faithful to a dead past. London will have a heritage of many statues—with only two good ones, both three hundred and fifty years or so old. The historian of the twenty-fifth century will record our love for decorations and furniture of the styles in vogue in the days of the Tudors, of Queen Anne, and of the times of Hepplewhite, Sheraton, Chippendale, and the brothers Adam.

Architects and Furniture

On one point alone can we take heart. We have certainly discarded the dreadful "Nouvel Art." And no wonder. Bad in design, impracticable in use, this furniture was hopeless from the start. But its failure sent the furniture makers back to "period" work. Once upon a time architects designed houses and either chose or designed their furniture and decorations. In isolated cases that is done to-day, but few men can afford the cost which this entails, and there are very few architects who could carry out such commissions.

To-day's usual method brings chaos. A wealthy client, having got his house, gives a wholesale order to some firm specializing in period furniture. They decorate the place for him. The architect steps out when the walls are up. If he stayed until the place was ready for its owner how much better it would be. Not that the "period furniture" experts do their work badly—as far as it goes. Often they do it uncommonly well. We had almost written—uncompromisingly well. That is the trouble. The architect alone is fully qualified to decide on the styles of decoration for the rooms he has designed. By his aid alone can an harmonious artistic whole be achieved.

A Free Hand for the Architect

If only a few wealthy men, with a love of art, could be public-spirited enough to let an architect have sole charge and design their homes from foundation to roof, from drawing-room carpet to the servants' bedroom suites, we might soon get a welcome change. We might then have some furniture that was not merely a slavish copy of earlier designs. We might even find a new Hepplewhite or a twentieth century Chippendale.

At least it is worth a trial, particularly if the designs were afterwards allowed to be reproduced by the trade. So, slowly may be, but certainly, a new note, a modern note, would be introduced. It is badly needed.

Let us by all means continue to treat Tradition with all the respect it deserves, but let us never bow down and worship it as if we were its superstitious and grovelling slaves, yielding up our souls to it in abject surrender.

The Destruction of London Squares and Terraces

With Notes on those in Islington

By G. LL. MORRIS

"If for every old landmark destroyed and every open space built over we could give in exchange something of architectural merit, we should not feel as we do now that those who come after us are being robbed of their just inheritance."—(Committee for the Survey of the Memorials of Greater London.)

A LONDONER setting out to discover London would not do amiss if he began with a pilgrimage to the squares and terraces in the neighbourhood in which he lives. Though he travel the Continent over he will find nothing with which he can compare them. At first these railed-in, neglected gardens, set about with severe-looking houses, present an alien and almost forbidding air. This effect, not altogether to be accounted for by their present condition, is partly due to other causes. It is disconcerting, for there is nothing in the main familiar thoroughfares to prepare the observer for what he will see. Along Oxford Street, or any of the principal suburban roads, he is hemmed in by buildings of all sorts and sizes, big and little, good, bad, and indifferent, built in a variety of materials: brick jostling stone, stone hugging terracotta, chaos and disorder nearly everywhere.

In these surroundings he is at home. And yet, within a minute's walk down a side street, he can step out of this hurly burly of buildings into a strange and unfamiliar world—a world he at first resents, it is so orderly, superior, and aristocratic. Its air of distinction does not attract, it repels him; he prefers Oxford Street or the Strand. If it be true that everything in the eighteenth century tended to create caste, the buildings of the period were at least characterized by a restraint and refinement that we appear to have lost.

It is, perhaps, not without significance that it is to the foresight and commonsense of a past generation of aristocratic landlords that we owe the lay-out and building of the London square, terrace, crescent, and circus. Unfortunately, it is in a measure to the descendants of these same landlords that we owe their present condition. It would be unjust, however, to lay the blame wholly on their shoulders. There have been other contributory causes, one of which may be traced to modern architects. As more than one writer has pointed out, architects are by no means innocent in the matter of destroying the original charm and quiet beauty of these enclosures.

This sort of complaint is by no means new. Ralph, writing long ago of Soho square, was highly disdainful concerning its condition. "The buildings around it," said he, "have not the least pretension to taste or order, it has a contemptible garden in the middle of the area, and a worse statue, if it be possible, in the middle of that." He is good enough to add that the place is not so entirely neglected as many others of the same sort.

Repeated attempts have been made to remedy this almost chronic ne From time to time subscriptions been collected by the inhabitants o surrounding houses for the purpo beautifying their square; and soon the laying out of residential square terraces had ceased to be fashio their condition had become so un factory that an Act was passed in called the "Gardens in Town Prote Act." This gave power to the M politan Board of Works to preserv properly maintain public gardens open spaces; it also included the ga in squares set apart for the privat of the residents living in the adj houses. This Act and the series of which followed a few years later hav adequately fulfilled their purpose, r it likely that any Act of Parliamen of itself bring about a change. Thi only be achieved when there is a stronger and more actively inte body of opinion than there is at pr In making this statement the write not overlook the thirty-eight years' of the Metropolitan Public Gardens ciation—a body which, more than other, has had to do with the acqui and laying out of these areas whe they can be obtained. It has also before public authorities the nee preventing them from being use



COMPTON TERRACE, ISLINGTON, LOOKING NORTHWARD.

Typical London Houses of the Late Eighteenth and Early Nineteenth Century—Highbury Terrace and Gibson Square





The juxtaposition of these two illustrations affords an interesting comparison between late eighteenth-century and early nineteenth-century "terraces" built in the same district (Islington and Highbury). It will be seen that the nineteenth-century houses have assumed a more severe aspect by the more sparing use of stringcourse and the entire abolition of the porch, and by the excessive narrowing of windows and doorways. Nor do the meaningless balustrading, and the lank pilasters and pinched pediment (features that faintly echo the Adam style), do much to mitigate the general austerity. Both "terraces," however, have in common a general air of quiet dignity—architecturally, that is to say.



PART OF CLOUDESLEY TERRACE, ISLINGTON.

ling sites. It is a reproach to the ens of London that this body does receive much greater support.

ne garden squares and other similar osures in London number close on hundred and fifty. Many were laid in the closing years of the eighteenth ury, a larger number in the early s of the nineteenth, and some even te as 1860.

quare, crescent, terrace, circus, and gle are going one by one, year by , soon—probably in the course of a ration or two—they will nearly all disappeared. Within my own re- ction some of them have vanished. recently Mornington crescent was ed for sale, Clarendon square, Somers n, has been built over, and not so long Edward's square, Kensington, and Peter's square, Hammersmith, were d from a similar fate. In 1918 the old of the garden in Prince's square, ney, was for sale, and the interesting ch which occupies the garden in the lle was in use as a store. The houses nd Finsbury square are being de- shed.

chester square, Camden Town, is as a nursery garden; a great hos- is to be built on the site of Trafalgar re, Chelsea, and many of the West squares have lost their architectural ficance. Soho, Hanover, Russell, ester, and Grosvenor squares are nples. The very name becomes ningless when applied to the motley ction of buildings which to-day sur- d these gardens. The word square ies formality, order, and dignity— acteristics no longer apparent, though and there a fine old house remains to nd a visitor of past glories. Firework ays which once enlivened past resi- s are out of fashion, and since lamp- s have become common, foot-pads robbers no longer haunt their neigh- hood. Occasionally, a hardened inal may visit one of the less well- vn, and then only that he may deposit his victim, as happened not very long ago, in Regent's square. Cats still appreciate them on summer evenings, and boys have been seen disguised as Red Indians, lurking among the shrubs and bushes. If the gates are locked the railings are, I believe, negotiable. Even for these useful purposes they will soon be no longer available. The name and, perhaps, a railed-off ragged plot of grass may survive to mark the site, but these will be all.

Beyond a natural and passing regret this destruction might be witnessed with philosophic equanimity if we could be sure that upon the ruins there would arise a series of distinguished buildings and well laid-out gardens. The future appears to hold no such promise. The landlords are not interested, the tenants are apathetic, and architects are apt to replace the old houses with original essays in building.

Though the gardens in the middle were originally intended only for the use of the adjacent householders, it has always been taken for granted that whatever might happen to the buildings the gardens would remain intact for the benefit of both the householder and the man in the street. They form a welcome contrast to the lines of the buildings, and from the main thoroughfares looking down the by-streets the passerby can still catch glimpses in the distance of waving foliage, of shrubs, of hedges, and trees which hang over the roadway, and introduce vivid patches of bright colour. Where these garden squares abut on the principal streets, as on King's Road, Chelsea, his eyes are gladdened at intervals by a green oasis and a widened view of the sky.



MOUNTFORD HOUSE, BARNSBURY SQUARE, ISLINGTON.

It is not pleasant to think of the way we Londoners have treated, and still do treat, the great bulk of these enclosures. What might not these gardens become if we thought of them as something more than "lungs." What a delightful series of surprises they might be for the native as well as for the visitor if every one of them was made beautiful, tended and cared for generously as becomes a great city. Instead of a summer resort for cats and a hiding-place for imaginative boys, only they would be also a delight and a joy to every citizen, places where he might linger awhile ere he passed on to go about his daily business.

Origin of the Square

How and when did the London square originate, and why did it grow so rapidly into the most popular plan arrangement for residential quarters? An ingenious and plausible theory has been given by a writer in one of the old numbers of this Journal. He suggested "that the square may have developed on somewhat similar lines to the dwelling, which is a weakening of its original character as a stronghold. Still, it was at first an imitation of the courtyards of the lawyers' inn, which were, and in some cases still are, after certain hours shut off from the profane vulgar by stout gates, these inns being themselves an imitation of the University squares. Finally the squares blossomed into a pleasaunce with trees and shrubs and flowers, and sometimes a grass plot large enough for croquet, lawn tennis, or bowls."

This suggestion of a mediæval origin is, at any rate, a pleasant theory, but one which could hardly be seriously maintained. The squares and also the terrace and crescent in its formal aspect are alien to the mediæval spirit. It is true that the University was planned around a quadrangle, as the eighteenth and nineteenth-century dwellings were around the square, and the quadrangle was sometimes shut off from the "profane vulgar by stout gates," but the analogy is not convincing. It is far more likely that the London square owes its origin to the Roman Forum. A journey to the Continent was part of the curriculum of the seventeenth and eighteenth-century architect, and during his visit it is probable that these market-places suggested the idea from which he developed the residential square, terrace, circus, and crescent. Mr. Inigo Triggs, in his book on Town Planning, says, the idea of an architectural square of uniform buildings probably originated in Paris, and was imitated in London about 1620.

The Late Eighteenth Century

Towards the end of the eighteenth century London consisted of a large centre and a number of partially isolated villages and suburbs situated on the main roadways leading to and from the principal towns in England. During the great building activities which began about this time these villages and suburbs gradually began to be linked up with the main centre by streets, terraces, and squares. Architects just returned from their continental tour were laying out the London estates for the great landlords. Social customs were changing, and the separation between classes in society was becoming more pronounced. The basement house was our expression of this feeling, the popularity of the square was another. It was exclusive. The wife of the prosperous tradesman who lived in Claremont square became more haughty than the Duchess who resided in Belgrave square.

Large numbers of the houses in the less well-known squares have gone down in the world since then, and the prosperous inhabitants are gone. Some are now occupied by middle-class tenants who let lodgings to single gentlemen, some have become boarding-houses, and others, again, are tenement houses.

The squares and terraces chosen to illustrate this article are from Islington and the adjoining districts, and many of the houses around them are occupied by the lower middle-class, who let lodgings. The gardens generally are neglected, no caretaker or gardener being employed. Barnsbury and Tibberton squares, the northern portion of Duncan terrace gardens, and Canonbury villas, are the most disgraceful. Other London districts may justly claim to have finer squares, but most lovers of London find Islington attractive in spite of its deterioration. It has always been so. Long before its squares and terraces were in existence Henry VIII discovered its charm. It was a favourite haunt, too, of Queen Elizabeth, who paid frequent visits to Sir Thomas Fowler, of Islington, and also to Canonbury house, the residence of Sir John Spencer. It was by the intervention of the Queen that Sir John Spencer was reconciled to his daughter, who had, against her father's wishes, married Lord Compton, who afterwards became the Earl of Northampton. The long terrace of houses set back behind a garden at the northern end of Upper street, Islington, bears the family name.

Islington in those days boasted only a few buildings. Two of the most important were the old parish church, which stood on the site of the existing one, and the "Queen's Head" tavern, one of the first houses licensed by Sir Walter Raleigh to sell wine under a grant from Queen Elizabeth. There was also the supposed residence of Sir Walter Raleigh, afterwards converted into a tavern called the "Pied Bull," and, on the western side of Lower street (Essex road), the building of Sir John Fowler's mansion was in progress. In the middle of Islington green was the maypole, and not far away the house and grounds of Sir Thomas Lovell, who took up his residence there in the reign of Henry VIII. The house afterwards became the home of the Earl of Leicester, and was probably the scene of the great entertainment given by him to Queen Elizabeth.

In addition to these buildings, and in between them, there were two or three groups of homesteads, and in the distance towards Highbury and Highgate there were windmills silhouetted against the sky. Nowhere was there any arrangement of houses which suggested a square or terrace. There were the beginnings of one in the few houses flanking Newington Green, at that time a village some distance away. So Islington remained, except for a few small additions from time to time, until towards the middle of the eighteenth century. At that time it began to grow more rapidly, but still only covered a small portion of the districts now known by that name. The principal group of buildings was round a Islington green. Upper and Lower s extended little farther than the p church of St. Mary's, Liverpool roa only just begun, and around the ple green at Newington were the only h which could be dignified by the na square. The terraces were disg under the name of rows, of which brook, Hedge, and Pierpont were chief. From Islington green it w pleasant walk in an easterly dire across the meadows to Newington, northward were the hamlets of Holl and Highgate, reached by the foot and roads between hedges and f Canonbury house, with its enclosed dens, was a prominent landmark.

By the end of this century several terraces were built, including Ty place, Highbury place, Highbury te Canonbury place, Astey's row, Clarke's place. A large number of series also had come into cultiva There was Watson's, at the rear of brook row, extending to Frog lane, Keith and Fullers, on the north si City road, not far from where the A Inn now stands. To the south of it Holmes gardens, and north of Islin green the existing parish church. latter was opened in 1754, an organ b added in 1772, and the peal of be 1774. Industry in the form of white works was started. Between 1793 1805 there was little change, though first portion of Duncan terrace, place, and Dalby terrace in the City were begun during this period. In a by Robert Wilkinson, published in 1817 no squares are shown, though a of Canonbury lane, which later forme north side of Canonbury square, was b A pair of houses on each side of U chapel formed the beginning of C ton terrace, and York place and D terrace next the City road were completed.

Three more manufactories appeared the scene: one for the making of w proof cloth, situated near the nort end of Liverpool road, where it Holloway road, one for making floorc and another paste board. There also further nurseries.

Dent's Survey

A survey of Islington by R. D begun during the years 1805 and 180 order of the Vestry, was corrected S. Rhodes in 1828. This map incl all the projected improvements, and published by Thomas Starling, of 19 mington Square, in Clerkenwell. Fo first time squares are indicated, and Canonbury and Cloudesley squares shown. The middle block and wing Annett's crescent have been built, and building lines are shown upon which intervening houses eventually st From the balconies of this crescent t was a view across the fields and the river, and beyond were well-planned dens, with Canonbury house visible in distance. Highbury place, Highbury race, and Highbury Park terrace ar shown on this map. Milner, Gibson, Lonsdale squares were all built after date. The first-named was begun in year 1841, and was erected from the de of the architects Gough and Roumieu, called after John Milner Gibson, ground landlord. These architects, were responsible for the design of

ngton Literary and Scientific Institu-
ı opened in the year 1837 and now
d by the Salvation Army, were also
architects of some houses at Tolling-
Park. The details of their work,
ticularly of Milner square, show Greek
uence. In a plan of Islington parish
veyed by R. Creighton in 1841 for the
ochial history, Gibson square, built
the ground landlord mentioned above,
ndicated. It was built a few years
ore Milner square.

ll through this century Islington was
wing as a residential district. Mer-
nts in fairly well-to-do circumstances
overed, as Queen Elizabeth had done
centuries before, that the north of
ıdon was situated in the healthiest and
st beautiful country outside the city
ls. For the vigorous city man in
ɔrgate street it was a pleasant walk
ɔugh the fields after his day's work,
f this was too much for him, he could
e the coach drawn by three lively
ses which ran every hour between his
ıe at Islington or Pentonville and the
. In the winter he could travel the
ance inside for sixpence. In spring
summer-time he rode outside. As he
roached Islington he could see on
ıer side of the road well-laid-out market
lens full of growing produce, and the
ıdows dotted with cattle. In the
r distance men and women were at
k in the fields about the brick kilns,
le children helped to stack the grey
ks, and further afield he could see the
e of his parish church, erected not so
; ago from designs by Mr. Launcelot
vbiggin.

ew terraces were rising here and there,
during this century, Tyndale place, and the fine groups known as Highbury place and Highbury terrace were built. Houses were beginning to creep eastward along the east side of Upper street and the south side of Lower street (Essex road) in the direction of Ball's Pond. There were new houses in the neighbourhood of Canonbury house, Colebrook row, New terrace, and also Astey's row, flanking the banks of the New river. Manufacturers were arriving on the scene, and big lead works had started at the southern end of Shepperton road. Numbers of large nursery gardens were in constant cultivation about this time. Fullers, Holmes, and Watsons were still going concerns. There were also Lane's nursery and Islington Spa adjacent to Sadlers Wells, and just behind Duncan terrace was Mr. Rhodes's cow lair.

Between 1793 and 1805, there appears to have been a lull in building operations, but very soon they began again, and to meet the demand for bricks other brick kilns came into existence. A new one was started in the fields on the southern side of Lower street (Essex road) just beyond where Annett's crescent stands. During the next twelve years York place was completed and a large cloth factory erected in Lower street, in the vicinity of the brickfields referred to above. Houses were starting up along the sides of Liverpool road; Felix place and Felix terrace have been built at the junction of Liverpool road and the western end of Barnsbury street. From this time during the years between 1817 and 1828 Compton terrace was extended northward and southward. Cloudesley square, Cloudesley and Islington terraces, and a number of other streets and terraces made their appearance at the western end of Liverpool road. A Wesleyan chapel was erected on the southern side to meet the spiritual needs of the occupiers of Cloudesley square and the adjoining terraces. Annett's crescent has been completed. Canonbury square, Canonbury and Alwyn terraces, and a new street in the vicinity of and west of Britannia row were all built during these years.

In spite of the great activity in building it is wonderful how the gardens grew in number, and the original ones at the rear of the older terraces reached further forward into the meadow lands. Islington must have been a delightful suburb to live in. In the little vignette given by Mr. S. Lewis, the Islington historian, he says: "The prospect down the Lower street looking northward from the end of Church street in the summer-time is very pleasing, the irregular disposition of the houses, intersected and enlivened by the variegated foliage of the different sorts of trees that stand before the buildings on each side of the road, gives the scene a very agreeable and picturesque appearance."

(To be continued.)

Publications Received

"Survey of London." Vol. VII. Chelsea (Part III). By Walter H. Godfrey, F.S.A. Price 10s. 6d. London County Council, Spring Gardens, London

"National Art Survey of Scotland." Vols. I and II. Price 7s. 6d. each. George Waterston and Sons, Ltd., Edinburgh.



MILNER SQUARE, ISLINGTON, LOOKING NORTHWARD.

Christ's Hospital Offices

The offices of Christ's Hospital have suffered various vicissitudes, in common with the ancient foundation whose name they bear. The original buildings were in Newgate Street, adjoining the school itself, and remained as Wren had designed them until their demolition a few years ago. When, however, the Charity Commissioners decided to remove the school to the country the whole block of buildings was abandoned, and later pulled down by the Postmaster-General, who subsequently erected the King Edward VI building on the site, perpetuating in the name the old associations of the place.

Ejected from their old haunts, the Governors decided to make use of the site at 26 Great Tower Street, which had been in their possession for many years, and when the existing buildings became old enough to be destroyed they were pulled down, and new offices erected in their place.

Mr. Arthur Blomfield, who was responsible for the design, has jealously guarded the old Wren tradition, following the character of the original red-brick building as closely as possible. The new offices consist of three stories, of which the ground floor is sub-let to business firms.

The main feature of the first floor is the Court Room, illustrated below, where the meetings of the governing body take place. This dignified chamber, a worthy successor to the Wren original, is lighted from both ends by stained glass windows commemorating the founding of the Hospital and by ceiling lights in the floor of the examination room above. It is panelled in beautifully carved Austrian oak, the cartouches especially being reminiscent of the best Grinling Gibsons tradition. The walls are hung with portraits of past governors and benefactors, the chief treasure being a Holbein portrait of the founder, Edward VI.

Outside the room is a statue of the same monarch, cut sheer out of an oak tree, the rough shape of which is visible at the back of the figure. This was bequeathed to the Hospital in 1676, and was brought over to the new offices when the old ones were demolished.

The general contractors for the new building were Messrs. Howell J. Williams, Ltd., who also executed the panelling; the sub-contractors were as follows:—

Redpath Brown & Co. (steel work); Kleine (floors and roof); R. E. Pearse & Co. (steel casements, skylights and ceiling lights); H. H. Martyn & Co. (carving wood and stone); Geo. Jennings, Ltd. (sanitary works); R. Crittall & Co. (heating); Waygood Otis & Co. (lift); Hart, Son and Peard (grilles, name-plates, etc.); Geo. Jackson and Sons (fibrous plaster work); Stuart's Granolithic Co. (strong room, walls, etc., and back stairs); Strode & Co. (electric wiring and fittings); Hobbs, Hart & Co. (book-room doors); The British Vacuum Cleaning Co. (vacuum cleaners); Waring and Gillow (Court Room furniture); Hampton and Sons (Court Room carpets).

Manchester Society of Architects

We have received from the a society a copy of the 1921–22 edition Kalendar, which furnishes an interes record of recent activities. The y says the annual report, has been a successful one, the sessional papers ha been both interesting and well atten The lecturers included Professors R Baldwin Brown, Orr, and Dickie, Messrs. Goodhart Rendel, A. N. Pren W. G. Newton, and John M. Macfar Sculpture, Mediæval and Byzan architecture, Montelpulciano, and Builder's Point of View were among subjects dealt with.

In addition to these the Institut Builders and the Society, in conjunc with the University, arranged a seri three public lectures at the Univer These proved so popular that a sir series has been arranged for the fo coming winter.

The Council has decided to open a in aid of the Manchester Unive School of Architecture.

The members of Council and Stan Committees elected to serve for 192 include: President, A. W. Henn F.R.I.B.A.; Senior Vice-President, W Beaumont, F.R.I.B.A.; Junior President, Professor A. C. Dickie, M F.R.I.B.A.; Hon. Secretary and Treas Francis Jones, F.R.I.B.A.; Assistant Secretary, G. Sanville, A.R.I.B.A.



COURT ROOM: OFFICES OF CHRIST'S HOSPITAL, LONDON.

Current Architecture. 114.—Offices of Christ's Hospital, London : Fireplace in Court Room.

Arthur Blomfield, M.A., F.R.I.B.A., Architect.



When, at the beginning of the present century, the building popularly known as the Bluecoat School in Newgate Street was condemned to destruction, Mr. Arthur Blomfield, who was appointed architect of the new offices in Great Tower Street, preserved Wren traditions in the Chamber in which the Court of Governors hold their meetings. The panelling of this room, and especially the central feature here illustrated, are strongly and most agreeably reminiscent of a design by Wren executed by the faithful Grinling Gibbons.

"Sculpture of To-day"

'HE first chapter of Mr. Kineton Parkes's book is arrestingly headed "A World Without Sculpture," and e first few words he asks : "Supposing e sculpture in the world were lost ?" thlessly we wait for the answer, but, ·tunately, Mr. Parkes can only im "Supposing !" And the question ins as unanswered as "What is What is Life ?" Somewhat lamely ıds the chapter thus :—

'he world has never been without ture; it has had its Sphinx as well s Pyramids; its Venus de Medici, her with its Mona Lisa; its Burghers ılais, in addition to its Tay Bridge; Parthenon Frieze and its Euston on. A world deprived of sculpture ıt as unthinkable as a world that has r possessed it. All honour to the :s who are producing it still and ıg to its glories, and a greater appre-ɔn of the supreme use to humanity eir elevating and evolutionary art." .d so, you see, it is like a daily r "scare" heading, and there is .ng to be seriously disturbed about all.

ɔwever, in his second chapter, "The ıs of Sculpture," the author com-es to cut more ice, and he tells us of manifold risks and worries of a sculptor's life : troubles of which the general public are, maybe, not aware.

It is, he says, for instance, a very much simpler matter to order a new set of paint tubes and brushes and a new canvas than to order a new block of marble, and infinitely cheaper. Even modelling clay is expensive, and to set up the armature of an equestrian statue is a matter not for the sculptor only, but for assistants and workmen; not a matter of a few shillings, but of some pounds. "When the modelling is completed, the risks are increased. The clay must be kept moist, but not too moist, which means constant attention. The work cannot be set on one side to await a more convenient moment, as a painted canvas may; it must be proceeded with at once or it suffers. The casting in plaster to form the model is a dangerous proceeding, and the removal to the foundry is attended with all sorts of risks which, however, are as nothing compared with those attendant on the casting in bronze."

As to sculpture itself, "it has a very elemental and unsophisticated character that is not possessed by painting or poetry or by music. The art of the sculptor is very direct, very naïve, very impressive, but yet its secret is often missed, and that is because, with all these qualities, the appeal is not obvious. Sculpture does not tell a story as a picture does, and, as the man in the street likes a story, sculpture is less popular than the sister art." And that is why the would-be Michelangelo or Rodin turns at last to cemetery-masonry, or to bee-keeping, or even to waiting-at-table, as did Mr. Crosland McClure.

Mr. Parkes says that a general understanding that sculpture is static to a far greater extent than is painting would lead at once to a higher appreciation of what is nowadays a woefully neglected art. "The critics in the newspapers, when they notice sculpture at all, ask from it the impossible, and detract from what has been given, and there are others who commit unpardonable misdemeanours with regard to the art. At the door of the sculptor, too, lie some of the misconceptions; in the office of the architect; at the gates of the offices of works; in the ministries of fine arts; at the tables of memorial committees; at the turnstiles of museums; and in the bank-books of patrons." And also, one might add, often at the pens of the very ones who set out to explain the art.

Mr. Parkes finds just cause for anger over the placing and neglect of sculpture in London, though worse conditions prevail in the provincial towns. Gilbert's bronze fountain in Piccadilly—which the author rightly regards as the finest piece of decorative sculpture in London—is a dreadful exhibition, "utterly ruined by its surroundings, and made worse by callous and insulting neglect." He points out the bad placing of the great Rodin group of the Burghers of Calais at the foot of the Victoria Tower, where it is dwarfed into insignificance by the immense height of the tower behind it, though there is a beautiful stretch of grass adjacent which is the obvious site. At South Kensington Rodin's work is lavish and not very satisfactory, and the work of Stevens is split up. Indeed, one comes to the conclusion that this chapter also contradicts its heading, and that sculpture has no status.

Mr. Parkes becomes more and more useful as a guide to the sculpture of to-day as he proceeds. The two chapters on the materials and the methods of the sculptor, for instance, contain an amount of practical information altogether unknown by the ordinary gallery visitor.

Having very clearly explained the amount of drudgery in this as in most other arts, the author proceeds to deal very thoroughly indeed with his subject, covering the English school, the Lambeth group, the Independents, American, Japanese, and Colonial sculpture, etc. He is also to be commended for the complete and comprehensive biographical notices of living and recent sculptors, with descriptive accounts of their chief works. To the art-lover as well as to the student of to-day this survey of the sculpture of the present century will come as an invaluable and long-waited for guide.



THE MAN CHILD. BY W. REID DICK, A.R.A.
(From Kineton Parkes's "Sculpture of To-day.")

"Sculpture of To-day," Vol. I. By Kineton Parkes. Price 25s. net. Chapman & Hall, 11 Henrietta Street, Covent Garden, W.C. 2.

A. and S.A.P.U. and the Profession

The following resolution has been passed unanimously at the National convention, held at Leicester, of delegates of the Architects' and Surveyors' Assistants' Professional Union :

"That this National convention of delegates of the Architects' and Surveyors' Assistants' Professional Union views with growing alarm the increasingly overcrowded state of the architectural and surveying professions in the country, the consequent under-remuneration of all practising, salaried and assistant architects and surveyors, the consequent unemployment of a large number of young men and women who, having entered the professions through the regularly constituted channels, must at the completion of their arduous and expensive period of training, or soon after, seek appointments abroad, or leave the professions.

"That this convention further desires to warn parents, guardians, schoolmasters and others of the responsibility they incur in entering those of whom they have charge (more especially if no particular aptitude for such callings is shown by them), into callings so overcrowded that they cannot now provide sufficient means to those already in them to maintain the status required of them by the public; and further to warn them, in any case, if they are unable to put an intended entrant into a recognized school for the teaching of the professions, not to enter into any contract of pupilage or apprenticeship with any firm without first consulting some competent authority that the training received with such firm will be thorough and beneficial."

North Wales Heroes' Memorial Competition

As briefly announced in our last issue the design of Mr. D. Wynne Thomas, M.S.A., of Bolton, has been placed first in the competition promoted in connection with the Royal Eisteddfod of Wales for a war memorial to be erected in the grounds of the University College of North Wales, Bangor. The conditions of the competition stipulated that the memorial was to take the form of a building, of which sculpture may be a feature, and that the total cost, including architects' fees, etc., was not to exceed £15,000.

Competitors had the choice between two sites, one in the park fronting the Main Arts Building, and approximately facing the old Bishop's Palace—now the Bangor Council offices—and the other in the open quadrangle facing College Road and Pen'rallt Road. The names of the fallen, from eight to ten thousand, are to be recorded suitably in banks or on screens.

Mr. G. Gilbert Scott, A.R.A., the assessor, in the course of his report, says: The designs sent in numbered nearly forty. Generally speaking, they do not reach a very high standard. Unrestricted by practical considerations of planning, etc., the subject was one that lent itself to imaginative treatment, and should have proved stimulating to the competitors. Yet the competition cannot be said to have brought out this quality in any marked degree.

The question of style is undoubtedly a difficult one, the existing University buildings being built in a style not suitable for this memorial. Most of the competitors have evidently been troubled by this difficulty. The choice of site, to a large extent, influences the style; the courtyard site demands a design in keeping with the University buildings, though some competitors have chosen this site and ignored this consideration altogether, boldly placing a classic design close up to the free Gothic of Mr. Hare's building.

The other site on the slope down to Deiniol Road is undoubtedly the finer, and enables the memorial to be placed sufficiently far from the University buildings to make the question of style a far more open one. Most of the competitors have chosen this site.

The Gothic designs sent in are of poor quality; those in the Renaissance or Classical manner being, on the whole, far superior. After a careful consideration we have no hesitation in giving our award to Design No. 26 (twenty-six). This design is refined, scholarly, and displays an architectural sense of style superior to the others submitted. The simplicity and restraint produce a dignity in keeping with the purpose of the memorial. The contrasts between plain surface and enrichment are effectively controlled.

We feel, however, that the design a stands requires modifications. It hardly imposing enough for the si this could be improved by making m of the podium or terrace work, u which the building stands. This app more especially to the sides, so as to g a long, low line of podium wall, w some feature at the end to mark length and compose with the building the centre. This would make the wh composition, not only more imposi but would give additional interest.

Effective use might be made of tr planted in a formal manner to group w and form a setting for the memorial; these should not be all round the bu ing, as indicated on the plan, wh would not only hide the building fr the sight of people approaching along Deiniol Road, but, being close to building, would give a cramped a shut-in effect, where spaciousness a breadth of treatment are called for.

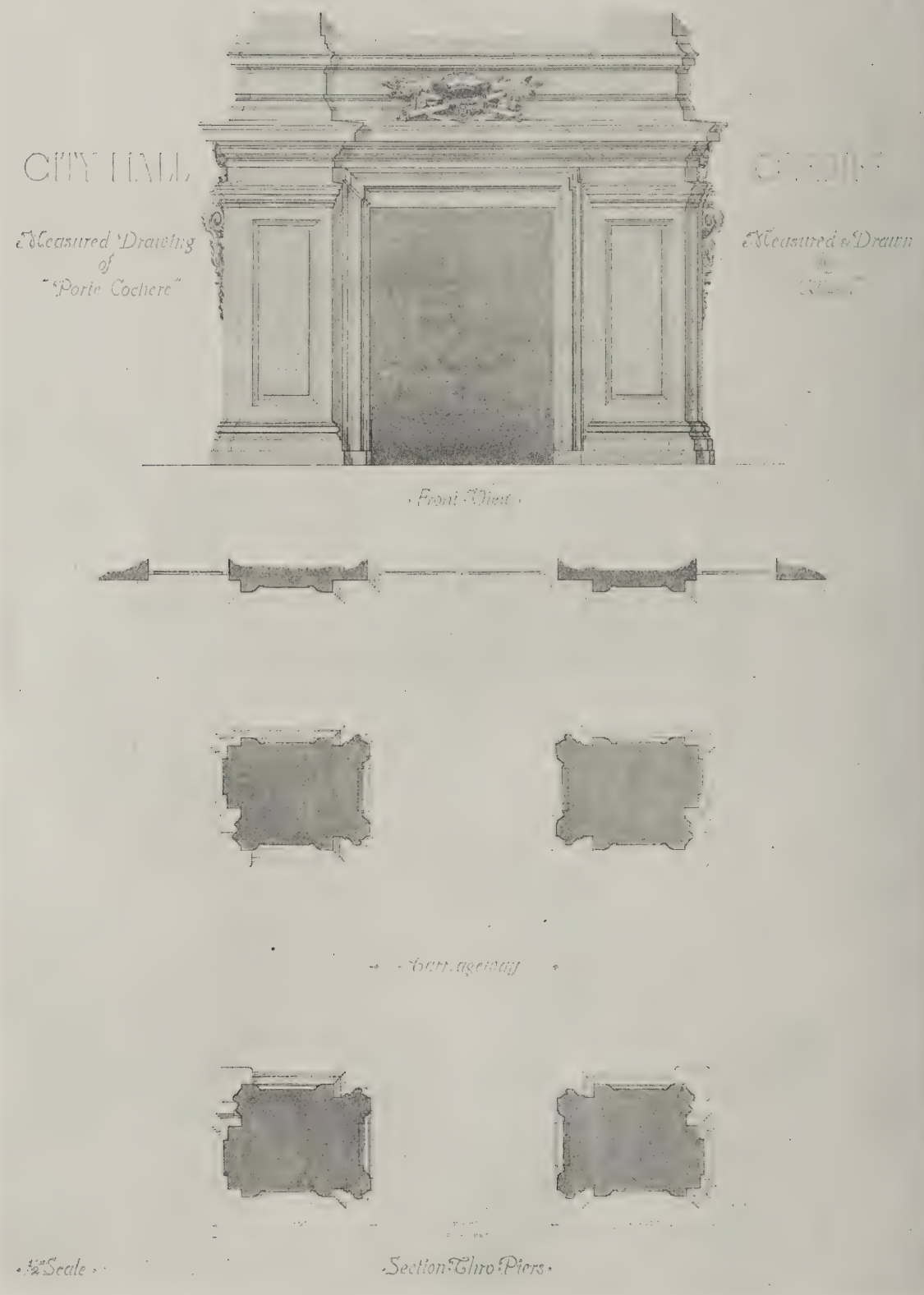
As, however, we understand that t competition is more for the purpose bringing out hidden talent, than obtaining a design for actual executi we feel that the author of Design No. undoubtedly possesses architectural qu fications superior to those of the ot competitors.



WAR, BY GILBERT BAYES.
(*From Kineton Parkes's "Sculpture of To-day."*)

Measured Drawings. 9.—P

Measured a

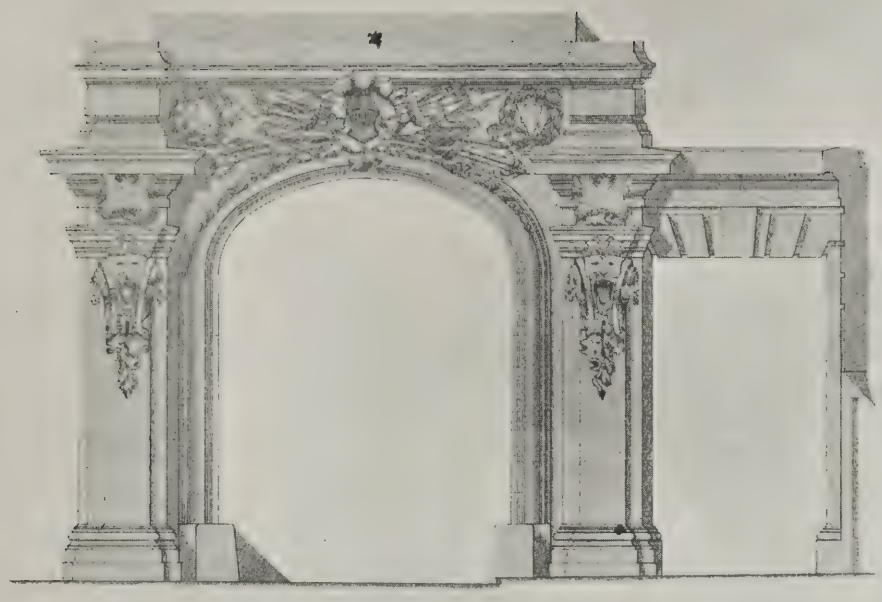


For these drawings Mr. A. L. Priest was awarded first prize in a measured drawings competition for student members of the
fact that the bold and free decorative features of this, its porte-cochère, strikingly attest. How great an architectural art

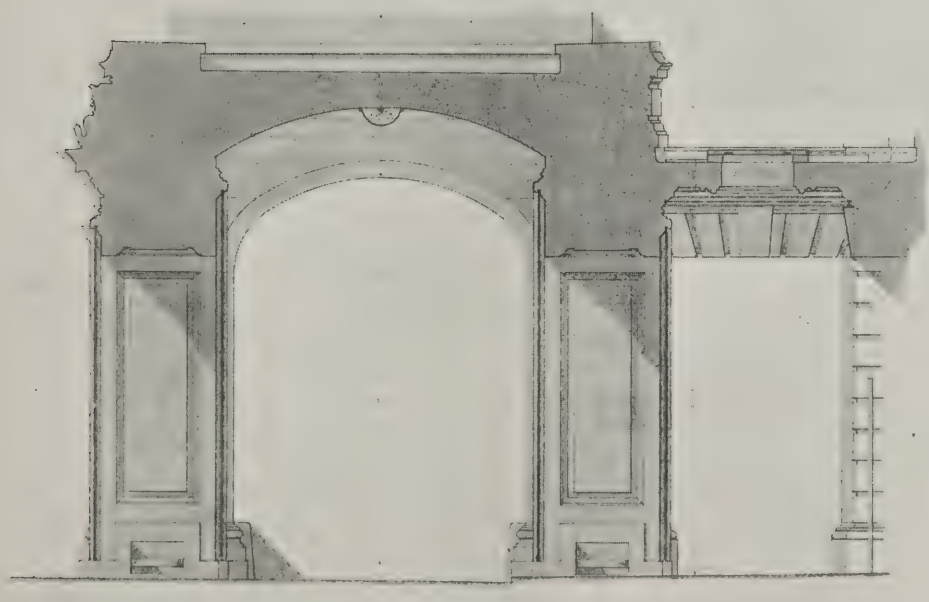
e to the City Hall, Cardiff

A. L. Priest

II.



Side View



Section

e of Architects. It will be recalled that the architects of the Cardiff City Hall were Messrs. Lanchester and Rickards—a the death of E. A. Rickards is further acclaimed with each fresh opportunity of renewing acquaintance with his work.

Correspondence

ow to Educate the Public

o the Editors of THE ARCHITECTS' JOURNAL.

rs,—We have read with much inter- he correspondence which has appeared our paper on the question "How to ate the Public." While we appreci- he various points of view expressed our correspondents, there is in our on a still more important and urgent er needing the earnest consideration chitects, surveyors, and builders, *i.e.*, w to Revive Confidence in Building." general public see large building tions in hand in many of our main ughfares, but can have no concep- of the slump that exists in the trade to the absence of small work. e cannot revive until confidence is tablished.

e hesitate to put forward views n might help the situation, but we do st that if a few architects, surveyors, builders get together much good l result. Repairs, alterations, and ations long overdue, if started ptly, would do much to meet the s situation we are faced with. gency work of doubtful utility, d forward with panic legislation by cted authorities, only increases the already carried by a long-suffering .

e action of Messrs. Guest, Keen, and efold in opening works in South when trade does not justify it is a tic step which will be emulated. workers and public co-operate the s will be justified in a wider sense. neeting such as suggested may lead rk being at once started to relieve serious state of unemployment. ers will co-operate, many are ready t prices and profits to get men yed. Restore confidence and much will restart normally, which is far satisfactory than forced trade.

E. J. HILL,
Director of Higgs and Hill, Ltd.

or Editorial comment see *ante*.]

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the Editors of THE ARCHITECTS' JOURNAL.

s,—May I reply shortly to Mr. Miller's interesting letter on the ? I agree with him that there ning to prevent an architect engag- n speculating building, just as s nothing to prevent a speculating r, or a gas fitter, or any other useful , calling himself an architect. the case is different for a qualified ct who is bound by the rules of his As Mr. Miller suggests, it would not be desirable for an architect to actually build for a client under contract; but if he were to do so it surely would not be speculative building. The system is adopted, however, extensively in the present day by many traders, and is growing again without the aid—or at any rate the appearance—of qualified architects. I agree with Mr. Miller that it "is one which should not be countenanced."

My suggestion is that qualified architects should be encouraged to associate themselves with purely speculative schemes of building, just as Adam did in the Adelphi and elsewhere. Architecture and architects would benefit, and the public would receive a considerable architectural education.

ARTHUR WELFORD.

Enquiries Answered

Concrete Floor.

W. A. W. writes: "The sketch shows a concrete floor which has to carry a load (including its own weight) of 7 cwt. per foot super. The panels are 12 ft. long, and the concrete will rest on the flanges of the rolled steel joists. Kindly state what reinforcement should be used, and where it should be placed in the concrete. It is proposed to put a 1½ in. floating over the top of this floor of fine concrete at a later period."

—Experimental data are lacking with regard to the strength of rolled joists embedded in concrete as compared to their strength acting alone. A formula which is given in Messrs. Redpath Brown's handbook, is based, it is understood, upon experiments carried out by that firm. Tables prepared from this formula are, however, only taken to a spacing of 24 in. between joists, and no indication is given as to whether the formula holds good with such a wide spacing as 3 ft. 9 in.

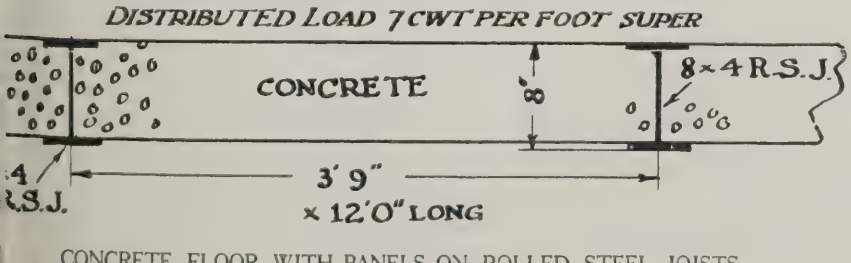
The exceptionally severe loading specified will obviously be beyond the capacity of 8×4 joists even if full credit be given for the assistance of the concrete.

The safe load of an 8×4 in. joist acting alone over a span of 12 ft. is 5·8 tons. Assisted by 45 in. of concrete it would be, by the Redpath Brown's formula,

$$5{\cdot}8+\frac{5{\cdot}8+1{\cdot}4846\times 45}{100}=5{\cdot}8+3{\cdot}85=9{\cdot}65$$

tons. But the load specified is 12 ft. × 3 ft. 9 in. × 7 cwt. = 15·75 tons, or, with the addition of 1½ in. of concrete (·16 cwt. per sq. ft.), 16·11 tons.

The safe load on a 10×5 in. 30 lb. joist 12 ft. span acting alone is 12·1 tons, and full credit for the presence of the concrete would similarly raise this to 18·15 tons.



CONCRETE FLOOR WITH PANELS ON ROLLED STEEL JOISTS.

(*See W.A.W.'s enquiry above.*)

But in view of the wide spacing of the joists it would be wise to use a 10×6 in. 42 lb. joist, the strength of which would be sufficient without any assistance from the concrete. The concrete will arch from joist to joist safely without lateral reinforcement. It can with advantage be haunched or laid on segmental instead of on flat centering, reducing the depth at the crown in the centre of each bay to, say, 3 in. The effective depth of such a concrete arch would be about 7 in., and the compression per square inch would be $C=Wl/8\div ad$. Taking a foot run of arch, $W=3{\cdot}75\times 7{\cdot}16\times 112=3{,}000$ lb., and $a=12$ in. $\times 3$ in. $=36$ sq. in.; so that $C=\frac{3{,}000\times 45}{8\times 36\times 7}=67$ lb. per sq. in. only. The shear is similarly slight, being $\frac{3{,}000}{2\times 120}=12\frac{1}{2}$ lb. per sq. in. The outward thrusts at the haunches balance when the floor is fully loaded except in the outer bays, which are usually provided with tie-rods about 4 ft. apart. The tension in each rod would be $Wl.8d=\frac{4\times 3{,}000\times 45}{8\times 7}=4.3$ tons. Say ⅞ in. diameter rods sectional area 0.6 sq. in. and safe tensile load 4·5 tons. A floor of this character has considerable lateral stiffness sufficient to take up any tendency to distortion under unequal loading.

P. J. W.

Reinforced Concrete Beams.

"Beams" writes: "I wish to construct a table of the carrying capacity of reinforced concrete beams for short spans, making use of round bars hooked on ends only, as reinforcement, making the beams of 4½ in., 9 in., 1 ft. 2 in. widths, and with 1, 2, 3 and 4 bars, etc. Would you please show how to work the problem given in [a text-book named by the correspondent], making use, if possible, of the formulæ there shown. Would you also show how to check this for shear, or does the formulæ provide for this? I only wish to use additional round bars for shear purposes so far as necessary, also how is the correct angle for shear bars obtained?"

—The formulæ quoted involve the use of the calculus, and cannot readily be co-ordinated with the standard formulæ which have been adopted in the R.I.B.A. and Inst.C.E. reports, and are compulsory under the L.C.C. regulations for frame building of reinforced concrete in London.

In view of the economical importance of adequate depth in reinforced concrete design, your correspondent would probably find it more profitable to plot these ordinary formulæ in order to obtain a graph with bending moments $\div bd^2$ as ordinates and ratios of reinforcement as abscissæ.

By taking various values of s_1, both rectangular and tee sections can be shown on the same graph.

The formulæ quoted by your correspondent do not allow for shear, which must always be treated separately. There is no "correct" angle to which bars should be bent up, but a slope of 2 to 1 is very common. Shear is dealt with in the R.I.B.A. report, in Marsh and Dunn's, and other text-books, and two long articles on it will be found in THE ARCHITECTS' JOURNAL of February 26 and March 26, 1913. P. J. W.

Model Laundries for Country Mansions

THE accompanying plan shows the arrangement of the kitchen and laundry of a large country mansion house based on the most modern practice. The apparatus is driven entirely by power, and obviates as far as possible the large amount of hand washing and mangling essential when the whole of the laundry work of a large establishment is carried out on the premises. The plant is similar to that installed in a large number of country houses, particularly in Scotland, and, prior to the war, in a few of the most palatial steam yachts.

As will be seen from the plan, the machinery is driven by power from a horizontal steam engine, size 7 by 10½ in., developing ten-brake horse-power at seventy pounds pressure. The steam supply for the engine is taken from a vertical steam boiler, which also supplies the necessary steam to the kitchen apparatus.

This steam boiler is usually of sufficient size and power to permit of easy firing, this being a more economical method than putting down a boiler possessing only the capacity actually required and demanding almost constant stoking. The engine exhaust is available for heating hot water either for laundry or kitchen use, thus effecting some economy by utilizing heat which would otherwise go to waste.

A good plan is to install a small galvanized hot-water tank in the engine house, with a cast-iron or copper steam coil in the bottom, into which the exhaust steam is led. It is better to heat the water in this way than to lead the exhaust steam directly into the water through a boiling nozzle, as the exhaust steam is usually greasy and would render the water of little use for washing clothes.

In the plan shown the main drive from the engine is to a line shaft overhead carrying pulleys for belt drives to the mechanical apparatus shown in position —a washing machine, a hydro extractor, and a steam finishing machine. An all-metal washing machine is recommended, owing to its durability and the fact that it is always germ proof. The machine forming a unit of the equipment shown on the plan is the sixty-shirt size, that is to say, it is designed to wash a load of clothes equal in volume to sixty men's shirts. The cage in which the load is placed is of brass perforated with holes to permit of the water and soapy mixture being showered on the load while the cage is revolving. Steam at five pounds pressure is introduced into the cage, and hot and cold water connections with controlling valves are also provided.

The method of washing is to load the machine with dirty clothes so that they will float loosely in the water, turn on steam, and run for 15 minutes. Soap and soda in solution are then added and the load allowed to boil for 20 minutes, after which steam is turned off, and cold water run through the machine to remove the soap.

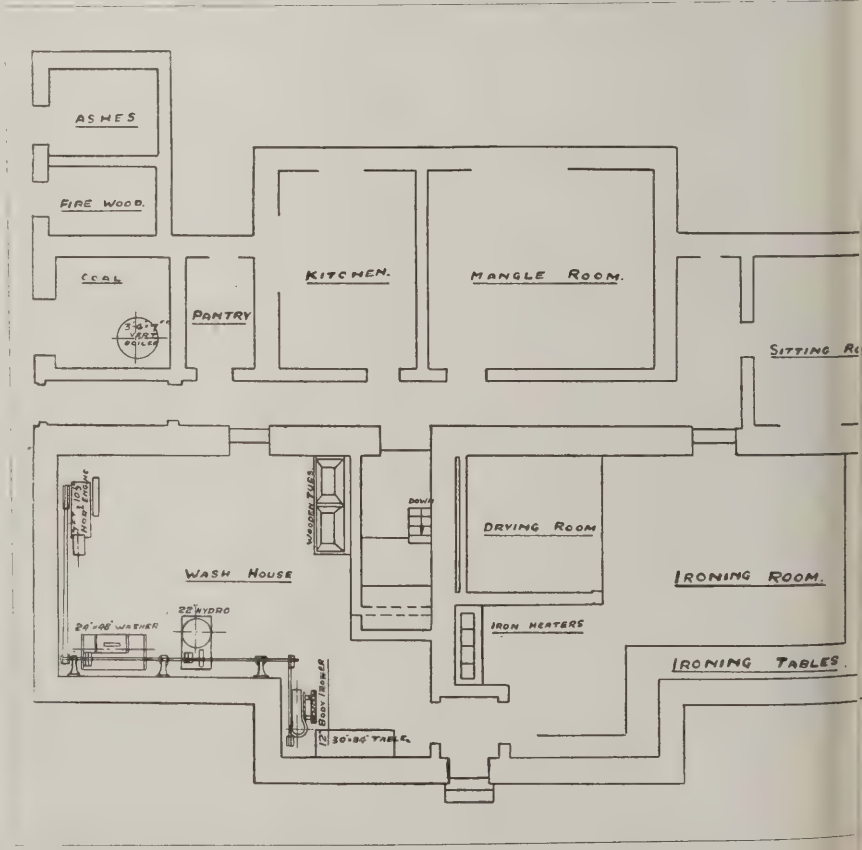
The load is then removed from the washing machine through the doors, and is ready for treatment in the hydro extractor. This machine performs its task very quickly, which consists of removing the loose water from the clothes and rendering them semi-dry. The result is similar to that obtained by an ordinary wringer, but with this important advantage, that, beyond packing and unloading the machine, there is no manual labour whatever. A load equal to twenty or thirty pieces can be wrung with this machine in 10 minutes, so that the whole load of washing machine can be dealt with in two operations.

Being now in a damp condition, the load of clothes are hung up in a drying chamber and dried off under steam heat. The most simple method of installing a drying chamber is to build a small brick apartment inside the laundry, measuring, say, 8 ft. square, and having a concrete roof and floor. The hanging rods for the goods can either be of wood or iron, but preferably the latter, as wood is apt to warp under heat. These rods are fixed near the roof of the chamber and at a sufficient distance apart to permit of a current of air passing between the rows. On the floor of the chamber and round one side, two rows of heating pipes with a steam connection are fixed, and if a convenient drive can be arranged, a small belt-driven fan should be fixed in one of the side walls so that the air of the chamber can be kept in a state of agitation, thus improving the drying efficiency. Where a belt drive is not convenient, and in any case if electric current is available, the fan should be driven by a direct coupled electric motor, as by this arrangement the drying process can be carried on at any hour even if the engine is running.

The arrangements for ironing finishing the goods in a private lau are varied according to requirements as the main object is usually to through the work quickly, a small s heated calender is the most effe apparatus. These calenders are bu all sizes from 36 in. to 108 in. roller will iron and finish table-cloths and general run of domestic washing requ this treatment.

The machine shown on the accomp ing plan is of the smallest size, w steam-heated roller 36 in. long, so wide pieces would require to go thr folded. A 72 or an 80-in. machine take in almost any article. Finery goods of delicate fabric such as lin is usually ironed by hand with ord sad-irons heated on a coke stove. addition to the apparatus described is the usual wooden tables for hand ing, folding, and laying out, and, space permits, a range of white enam fireclay wash tubs are recommende washing woollens and any special which are not suitable for treating i power machine under steam heat.

With the occasional assistance handy man to fire the boiler (the gar is usually called upon to do this job) maids are quite capable of runni small mechanical laundry on the indicated, and, where the family i large, only a part of their time w occupied.



PLAN OF MODEL LAUNDRY FOR POWER MACHINERY

Architectural Details. 11.—Restoration of the Choragic Monument of Lysicrates, Athens



Praxiteles may have made this Choragic Monument of Lysicrates. The inscription here seen records that the Dyonisiac musical contest it records was held while Euænetos was archon, which fact is taken to indicate the date B.C. 335–334, when the School of Praxiteles was flourishing. This monument, specially esteemed as being the oldest existing building of the Corinthian Order, shows another noteworthy feature: the acanthus carved on the roof and in the capitals is unique in ancient sculpture as a close imitation of the natural acanthus. This view of M. Loviot's scholarly and spirited "restoration" shows the south-east side of the monument, bearing the famous inscription.

Law Report

ousing Scheme Dispute: tificates by Architects and Surveyors

omic Building Corporation, Ltd. v. pool Corporation and John Leaning and Sons.

Vacation Court, High Court of Justice.
Before Mr. P. Branson.

is was a motion made on behalf of Economic Building Corporation, ed, contractors under the Liverpool oration's housing scheme, involving rovision of two thousand houses at approaching £2,000,000. Plaintiffs ed a declaration that certain certifi- issued by Messrs. John Leaning and of London, quantity surveyors for the Corporation, to the effect they, the plaintiffs, had been over- up to a specified date a sum of 318, were invalid. The plaintiffs ed an injunction restraining Messrs. ng and the Corporation from acting the certificates. The largest site e houses is at Gorlton.

Jenkins, K.C., and Mr. H. G. tson (instructed by Messrs. Ader erowne) appeared for the plaintiffs; eeves, K.C., and Mr. Glover (in- ed by Messrs. F. Venn and Co., for Mr. G. Hammond Etherton, of ool) for the Corporation; and Mr. , K.C., and Kohan (instructed by . Braund and Hill) represented . Leaning and Sons.

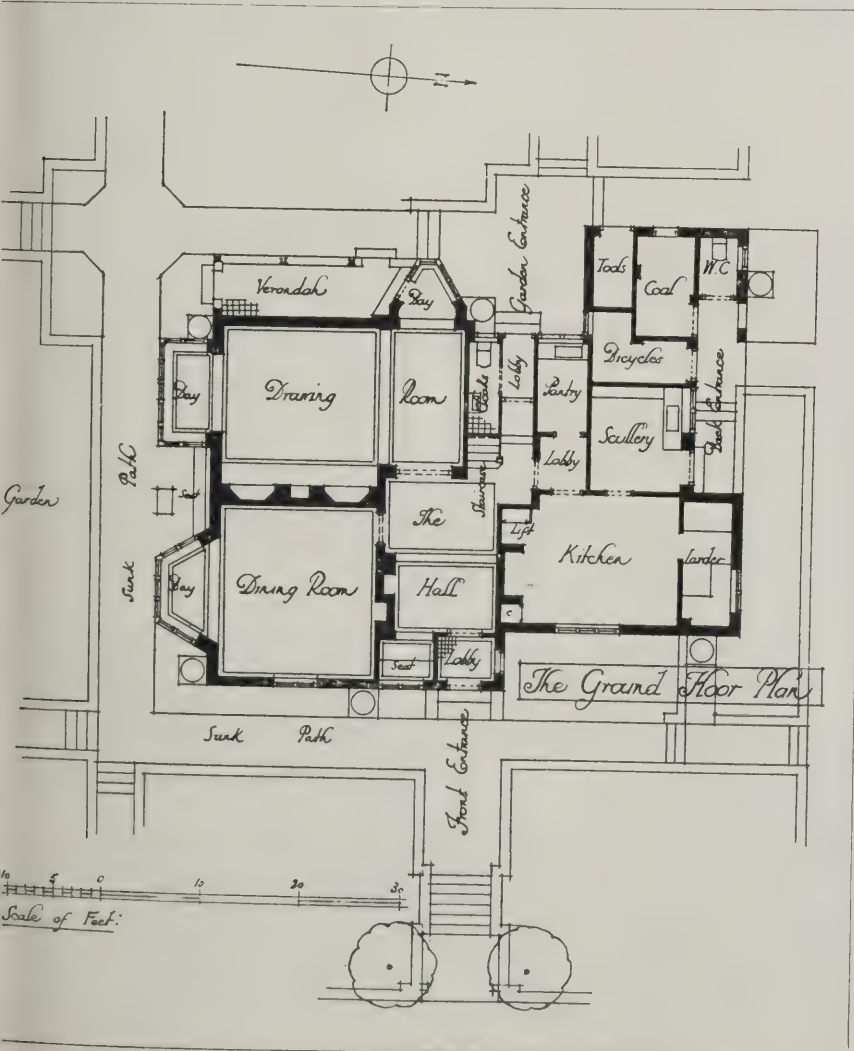


HOUSE AT WILMSLOW: HALLIDAY, PATTERSON AND AGATE, ARCHITECTS

Mr. Jenkins said that the housing scheme was embarked upon under pressure from the Government. It provided for about 2,000 houses of two types, 668 houses to cost, as originally arranged, £825 each, and 1,332 houses to cost £855 each—a total outlay of £1,689,960, liable to an increase for extras. The dispute turned to a great extent upon the construction of an agreement. The Liverpool Corporation got into touch with the plaintiffs, and an agreement was entered into dated May 11, 1920, under which the plaintiffs contracted to build the houses for the sums named. At the present time 982 houses had been completed or commenced.

Mr. Jeeves said he made the number of completed houses 171.

Mr. Jenkins, proceeding, explained the effect of the agreement, which included a provision that no sum of money should be considered to be due to the contractors or to be recoverable by them unless the amount was certified by the Corporation's architect. The plaintiffs obtained all the plant and erected accommodation for the workmen, who were to make the cement blocks on the spot and build the houses. In March, 1921, disputes arose between the parties concerning the issue of a quantity of certificates by the Corporation's architect, and the matter was about to go to arbitration when arrangements were made to stop the arbitration and provide a modus vivendi, pending the completion of the contract. A supplemental agreement was entered into, under which Messrs. Leaning were appointed quantity surveyors, to ascertain and certify what sums were due under the contract of May, 1920, with authority to base the value of the work executed at the enhanced price of £960, and £990 for the two classes of houses respectively—this being an increase of £135 on every house, which raised the total outlay on the scheme to £1,959,960. Messrs. Leaning reported that the plaintiffs had been paid £951,982, and overpaid an amount of £338,818. This the plaintiffs denied, alleging that the figures had not been arrived at in accordance with the provisions of the agreement, and they asked for a declaration that the certificates were erroneous, and that the matter must be reopened. One of the clauses of the supplemental agreement provided that if the plaintiffs had been overpaid the amount should be refunded by deductions from the future monthly payments. The plaintiffs' complaint was that the rate



GROUND PLAN OF HOUSE AT WILMSLOW.

at which the defendants proposed to make the deductions would cripple them, would prevent them carrying on their work, and was contrary to the terms of the agreement.

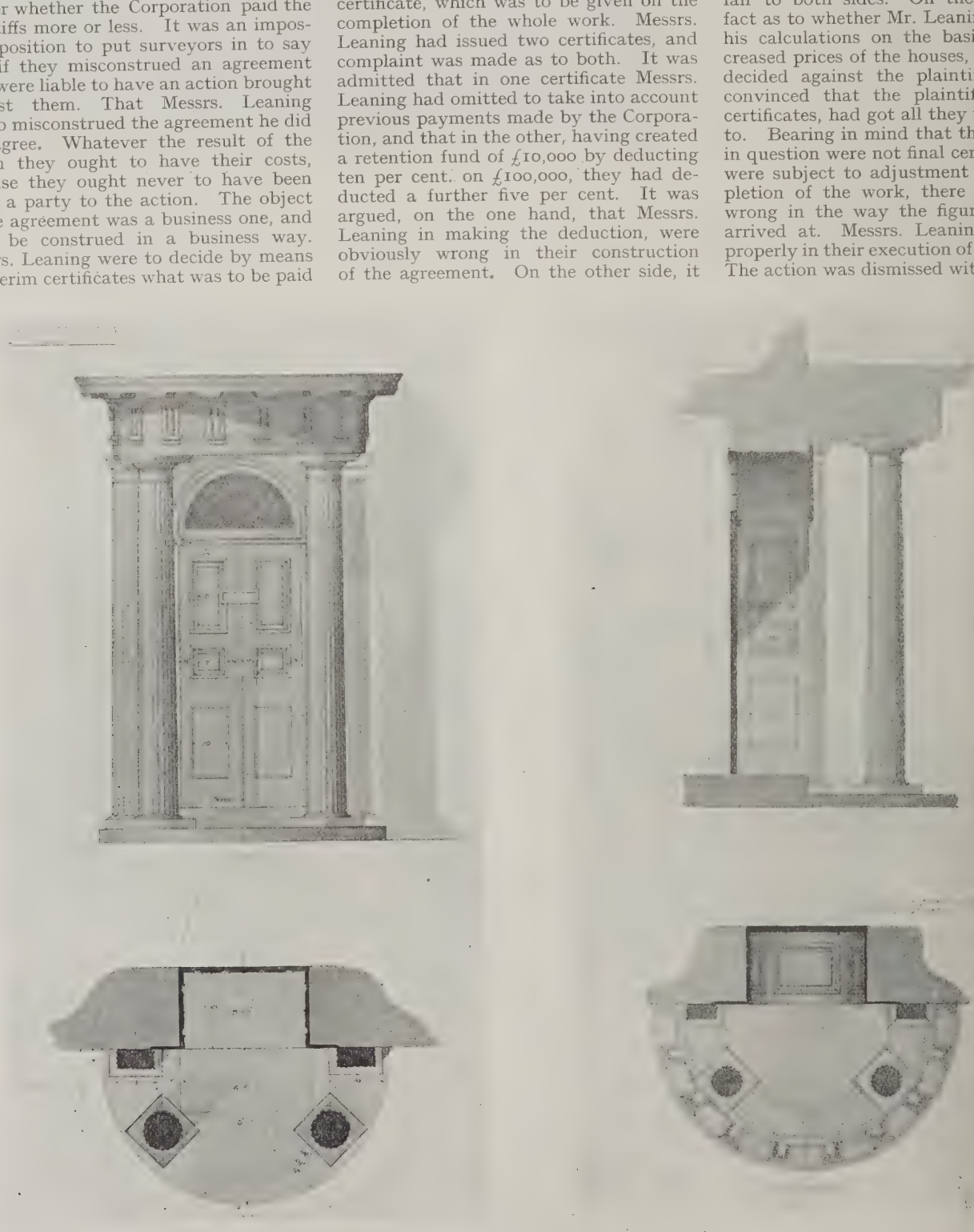
Mr. W. A. Leaning said that the suggestion that he had not valued the houses in question upon the basis of the supplemental agreement was untrue. He had acted with perfect fairness to both sides, and had done no injustice to the plaintiffs.

Mr. Jeeves, for the Corporation, submitted that Mr. Leaning having been brought in by both parties on the footing that his decision was to be final and binding, and he having acted honestly, it was not possible to go outside his certificates.

Mr. Colam, for Messrs. Leaning, said that from their point of view it did not matter whether the Corporation paid the plaintiffs more or less. It was an impossible position to put surveyors in to say that if they misconstrued an agreement they were liable to have an action brought against them. That Messrs. Leaning had so misconstrued the agreement he did not agree. Whatever the result of the action they ought to have their costs, because they ought never to have been made a party to the action. The object of the agreement was a business one, and must be construed in a business way. Messrs. Leaning were to decide by means of interim certificates what was to be paid to the contractors. It was going altogether outside the meaning of the agreement to ask that everything should be reopened.

Mr. Jenkins, replying, said that it was necessary to join Messrs. Leaning as defendants, because, unless they gave some further certificates, the plaintiffs could get nothing at all. The plaintiffs could only get what was certified for, and they were told that no further certificates were to be issued until the deficit was made up.

Mr. Justice Branson said under the supplemental agreement the Corporation agreed to bring in Messrs. Leaning to make a valuation of the work done, and then to give certificates from time to time as to allowances to be made during the progress of the work, down to the final certificate, which was to be given on the completion of the whole work. Messrs. Leaning had issued two certificates, and complaint was made as to both. It was admitted that in one certificate Messrs. Leaning had omitted to take into account previous payments made by the Corporation, and that in the other, having created a retention fund of £10,000 by deducting ten per cent. on £100,000, they had deducted a further five per cent. It was argued, on the one hand, that Messrs. Leaning in making the deduction, were obviously wrong in their construction of the agreement. On the other side, it was claimed that the position of Leaning under the supplemental ment was such that, whether th rightly or wrongly construed the ment, they had been made the juc the agreement between the parti in the absence of any fraud or misc on their part both parties were bo their decision. Plaintiffs had r the sum of £951,982, and they we tled to £613,000, both these figure admitted. The Corporation, th had overpaid them nearly £339,00 Leaning might be wrong in his co tion of the agreement, but he wa satisfied that that gentleman w fectly honest in everything he d that he had endeavoured to carry agreement in a proper and faithful fair to both sides. On the ques fact as to whether Mr. Leaning ha his calculations on the basis of creased prices of the houses, his L decided against the plaintiffs. convinced that the plaintiffs, b certificates, had got all they were to. Bearing in mind that the cert in question were not final certifica were subject to adjustment on th pletion of the work, there was wrong in the way the figures ha arrived at. Messrs. Leaning ha properly in their execution of the c The action was dismissed with cos



PORCH AT NO. 6 WORKING STREET, CARDIFF. MEASURED AND DRAWN BY ALEC G. FLETCHER.

(*See opposite page.*)

he London Salon of Photography

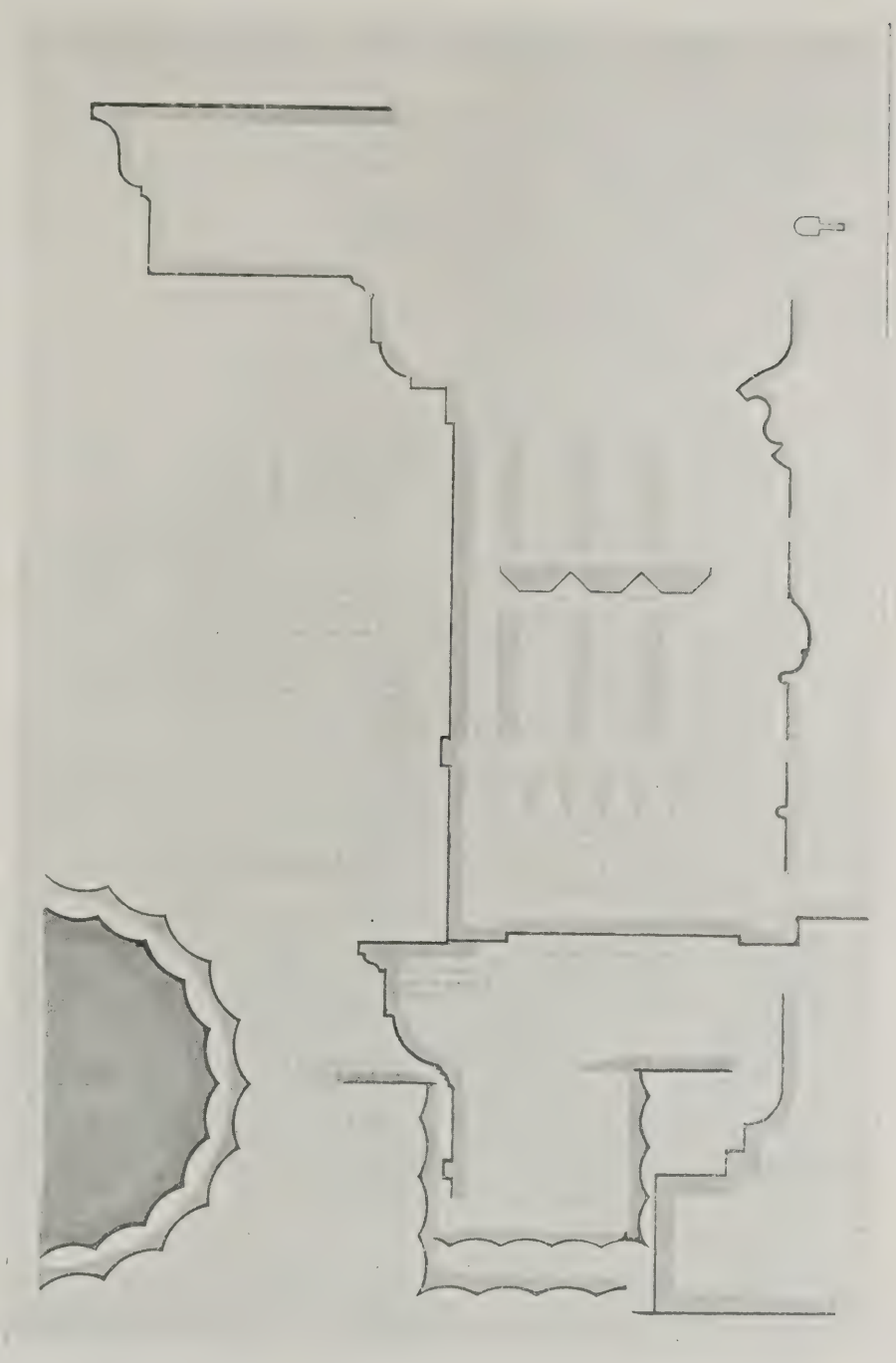
ou are not likely to regret parting with s. 3d. asked in order to see this ex- ion, for it contains helpful as well as llent stuff. Not that there are many ographs of buildings; these, in point ct, are very few, but the methods of ntation of the whole are interesting, only to architectural draughtsmen, to anyone with an appreciation of ficant forms and volumes. It is a of camera wizardry. There are tric pictures, products of distorting s, but fakes are few. Even the bas- effect achieved by Mr. Adams in umbine" cannot be counted as such, is obtained by entirely legitimate, is to say, mechanical means.

nity is the note of this year's show, a strong tendency to rely more on class photography and less on second- "art" is in evidence, a fact seemingly ciated by most visitors. Some por- have the delicate appearance of ngs; other exhibits, such as Mr. ne's "Sale Temps," and Mr. J. H. ton's "The Haunted House," look nezzotints; this method of transmu- n of values, if not carried too far, he advantage of lending a touch of poetry to the work; such tendencies e cultivated too assiduously, how- Witness Mr. Hagemeyer's "L'Affin- or Pierre Dubreuil's "Unruliness," tter a fine silhouette of a centaur. dea in both cases is alluring, but it nes too much so in its sophisticated ntation. A little tour-de-force in and agility is Mr. F. Jay's "Will o' Wisp," which is not unmindful of the ican etcher, Troy Kinney. For mer-like lightness see Mr. R. Lewis's Beach Twilight," where every fine cence of falling light is held as if on paper. Mr. M. N. Bremon's its of the Wayside" belongs to the category.

re are few nude studies, but all are ent. A supremely beautiful exam- model, of pose, and of photography . Bertram Park's "Nude" (17). with the magnificent limbs of a god- nd the ease born of racy deportment, odel stands up, her legs partly d in soft shadows. The pose is ess and admirably served by very technical skill. The Earl of Car- n and Mr. N. Murray have also fine prints of nude, but the latter's position," "Mdlle. Desha," and y" are outdoor photographs, and of simpler methods of lighting.

fine chiaroscuro values, study Mr. 's "Happy Moments," a delight- plain doorway in some Algerian It is very suggestive of tone- for water-colours. Of more archi- al interest is Mr. J. Anderson's lmill," a robust fellow of a Dutch complete with surrounding farm- . Mr. L. Steele's "Under the s" will sow new longings for r sight of Venice—Venice for ever g; but Mr. Moore's "Bridges," an tic vision of some colossal modern tructure, will go home on an alto- new and more vital sensation. Felton's "Craig Goch Dam" shows rther the powerful effect of large ering works, and proves once more eauty lurks out of the ruthless, gigantic, and unadorned architectural masses just as readily as it does out of the exquisities of a Tudor cottage, or an Italian courtyard alive with the melody and shapes of its Renaissance fountain. There are altogether 446 exhibits, and the show will remain opened until the 8th of October.

G. HOLT.



DETAILS OF PORCH AT NO. 6 WORKING STREET, CARDIFF.

South Wales Students' Drawings

This week we illustrate the students' measured drawings which have been awarded 1st and 3rd prize respectively in connection with the competition for the student members of the South Wales Institute of Architects. The 1st prize, awarded to Mr. A. L. Priest, is a set of drawings of the well-known Porte-cochere to the City Hall, Cardiff, and the 3rd prize, awarded to Mr. Alec G. Fletcher, also of Cardiff, is a drawing of a small Doric porch to what was formerly the Bute Estate Offices in Working Street, Cardiff. In addition to the Summer measured drawing prize the South Wales Institute runs a designing club during the winter months, subjects being set once a month, and prizes awarded at the end of the session.

For next winter a new scheme has been arranged, whereby the existing designing club will be discontinued, and the students will join an evening atelier which will be run by the new school of architecture at the Cardiff Technical College, with the co-operation of the South Wales Institute. Professor Purchon, M.A., A.R.I.B.A., and Mr. Winder, A.R.I.B.A., of the School of Architecture will be in charge, and Mr. Percy Thomas, O.B.E., A.R.I.B.A., who has been in charge of the designing club, will act as visiting architect on behalf of the Institute.

Professor Reilly on Ottawa

THE guide-books tell you that Ottawa is the capital of Canada, the seat of the Federal Government, and has a population of 100,000 persons. But Ottawa is the capital in many other ways thanthis bald statement would seem to imply. To a visitor it stands in the same relation to other Canadian towns that a good club does to New York. It is an escape from commercialism, from the ever-present and ever-pressing competitive spirit which a comparatively new country seems to foster. You notice the difference directly you step off your train, or even before. You walk down a spacious platform with plenty of porters to carry your bags. You proceed by a broad underground passage into the vestibule of the Château Laurier Hotel. You secure a room, certainly at a New York price, but with no apparent difficulty.

Folk have leisure to talk and enjoy life. Certain of their place as governors of an empire bigger than that of the Romans, or in some way attached to its government, they have the ease of manner which an assured position at a fixed, if moderate, salary gives; for the town I imagine, in spite of its lumber industry, is largely composed of civil servants and politicians. It was my lot in the few days I was there to meet a number of the latter, from the Prime Minister downwards, and they were certainly very charming people to meet. You met them, too, in the same clubs to whatever political party they belonged. At the Rideau Club, opposite the Parliament buildings, you met them at lunch; at the Country Club, on the Quebec side of the river, you met them again at night. Ministers and high officials seemed as plentiful in these two clubs as professors at the University and—dare I say it?—more friendly to strangers. On the other hand, when one met them in committee, they had what for my purpose were two signal virtues, they appeared to say what they meant directly and simply, and they were willing to trust the expert.

This pleasing society lives in a town of great possibilities. It would be untrue to say that they have as yet all been realized. Ottawa is magnificently situated on three great rivers—the Ottawa, the Rideau, and the Gateneau. The former is about the width of the Mersey at Liverpool, and runs between great cliffs; the others slightly less. Crowning these cliffs is the group of the Parliament Buildings with its many towers, picturesque enough in the distance, but of Victorian Gothic detail when seen close at hand. Recently the block containing the two chambers was burnt down, has now been rebuilt on an en scale with a tower which, when fi will be nearly 300 ft. high. On th side these buildings form three sid large grass quadrangle, with the side open to Wellington Street, th cipal street of the town. Imme opposite is the Rideau Club, flank public buildings. Wellington which is a very wide thoroughfare, the line of the cliff with gardens side. At night, too, it is a striking for it is closely lined with short light standards, each carrying a gr five large globes. These are kept all night, and form two long li light which the Champs Elysée co surpass in pre-war days. Inde Ottawa no one ever seems to turn electric light, so cheap is the made from the local falls. The ment Buildings and the pictu Château, of romantic and pleasin line, make a delightful scene afte glowing, as they are, at every and entrance.

Behind Wellington Street and to it runs Spark Street, the chie ping centre, full of fair-sized sto which I noticed flowers made a display whatever the merchandis



BRITISH BANK OF SOUTH AMERICA, LONDON. THE DIRECTOR'S ROOM
DUNN AND WATSON, FF.R.I.B.A. ARCHITECTS.

ling out behind these streets is the ıtial quarter with several square of tree-lined avenues and streets, with detached residences, some, nong them the pleasantest, still in This area is divided into rect- ır blocks, but, fortunately, the of the river and a large canal it up before it becomes too mono- ;. In certain places the result has ıaturally, sweeping roads following ;er bank, with houses with public ıs about them. In this newer pment, too, the houses are mostly mple and plea ing Georgian type. pride of the town, apart from its front, is Rockcliff Park, a large ıtion following the curving cliffs awa River and full of trees, great spaces, and fine drives. Here is :d Government House, a dull, structure, looking more like a than a palace. Each afternoon the s filled with the innumerable black -cars every town in the Western)here, however small, seems to s. Touring as we know it in ıd is not very common, owing to lifficulties, but motoring for plea- ; much more. Your hired girl will an automobile drive on her after-)ut, and poor, indeed, must be the -or university professor—who has "machine" at his command. d not find that the theatre or the played any great part in Ottawa ıough there, as elsewhere, grateful ies were held of the visit of Miss nan's company before the war. are good libraries, however, apart he particularly hideous one saved ire by an undiscerning providence the Parliament Buildings were and every one seemed to have read st novel by Compton Mackenzie. is nothing colonial or provincial this charming town. Parliamen- ınd legal vacations and salaries I suppose, trips to Europe frequent sy. Only one man told me of his Rolls-Royce cars and the seven oms in his country shack. I doubt ıy other town on the same side of lantic one would have got off so as that.

racts from an article in a recent f "The Liverpool Daily Post and y."]

hampton Polytechnic Institute

new session of the Northampton chnic, St. John Street, E.C., in the g classes will start on 26 September, e day classes a week later. Last marked the resumption of full ı all departments of the Polytechnic conclusion of the war, and it may e taken that all the classes are in ıll pre-war stride.

substantial additions were made equipment during last session to a liberal grant of the London Council. During the disturbance by the war the equipment could kept up to its usual high and up- standard, but a very good start en made in supplying the deficien- th in the engineering departments and in the department of optical ring, and applied optics. The nme of the work for the new session now resumes its full pre-war aspect, and the courses in the engineering Day College are the full four-year courses familiar to engineers in pre-war times. In engineering the regular classes are announced, and short courses of lectures in special subjects will be given during the session.

In all departments, civil and mechanical engineering, electrical engineering, optical engineering, and technical chemistry, etc., the programmes of the various classes have been brought up-to-date.

Latest List of New Inventions

Latest Patent Applications.

23756.—Darby, E.—Buildings. Sept. 6.

23618.—Tout, L. I. R.—Mechanical hammer for clenching nails. Sept. 5.

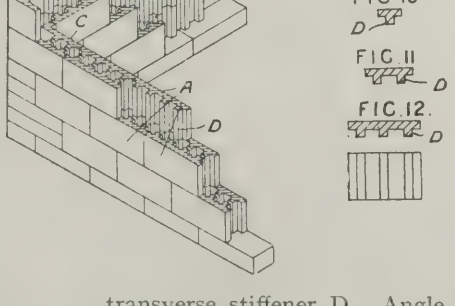
24038.—Westaway, J. C. — Portable houses, etc. Sept. 9.

Specifications Published.

152357.—Lichtenberg, F., and McCarthy, M. M.—Building slabs and a method of utilizing same to form walls and the like.

Abstract Published.

166753.—Walls.—Hunt, J. F., 14 Smalley Road, Stoke Newington, and Cesar, L. V., 20 Coolhurst Road, Crouch End, both in London.—Double Walls.—Relates to cavity walls of the kind which are built of concrete slabs A formed with transverse stiffening projections D which are arranged in vertical alinement and face one another without meeting so that a continuous cavity is formed between the walls. According to the invention, there is employed a standard or unit block A consisting of a maximum of four sections which may be all integrally united or separated in the mould to form quarter, half, or three-quarter units, Figs. 10, 11, and 12, each section being provided with a central



transverse stiffener D. Angle-blocks shaped as shown at B, C and of half the height of the unit block may be employed to complete the structure. The unit block or the sections thereof may also be halved horizontally if desired.

The above particulars are specially prepared by Messrs. Rayner & Co., Registered Patent Agents, of 5 Chancery Lane, London, from whom readers of this Journal may obtain all information free relating to patents, trade-marks, and designs. Messrs. Rayner & Co. will obtain printed copies of the published specifications and forward on post free for the official price of 1/- each.

Competitions Open

"The Daily Mail" Labour-saving House Competition.

"The Daily Mail" offers £500 in prizes to architects for ideas and designs for labour-saving houses. Prizes of £300, £125, and £75 are offered for the best designs for a labour-saving house for a professional class family, who would occupy a house costing £1,000 to £1,200 at pre-war rates of building, and which would now cost anything from £2,500. A house will be erected at "The Daily Mail" Model Village, Welwyn Garden City, Herts, to the designs of the architect winning the first prize of £300, and a model of this design will be shown at the Ideal Homes Exhibition at Olympia, March 1–25, 1922. The general points upon which this competition will be judged are :—

1. Convenience of the plan itself from the labour-saving point of view.

2. The merit of individual labour-saving suggestions incorporated in the house.

3. The economy with which the idea is carried out.

4. The architectural appearance of the exterior.

"The Daily Mail" has issued a booklet giving the conditions in full.

Auckland War Memorial and Museum Building.

Museum as War Memorial Building. Premiums £650, £250, £100. Promoters not bound to engage author of winning design as architect. Particulars at R.I.B.A., 9 Conduit Street. Designs to Mr. T. F. Cheesman, Princes Street, Auckland. Closing date February 28, 1922. Members of the R.I.B.A. and of the Society of Architects are requested not to take part in the above-named competition without first ascertaining from their respective societies that the conditions have been approved by the Councils. (Full particulars of this competition were published in our issue for September 7.)

New Hospital Buildings at Cairo.

New buildings of Qasr el' Aini Hospital and School. Accommodation 1,225 beds. Assessor Mr. John W. Simpson, PP.R.I.B.A. Apply, enclosing cheque or draft for three Egyptian pounds, or its equivalent in sterling, to the Secretary, R.I.B.A., 9 Conduit Street, London, W.1. Closing date for preliminary competition October 3.

Birmingham Hall of Memory.

Hall of Memory. Cost not to exceed £30,000. Premiums £500, £300, and £200. Assessor, Sir Reginald Blomfield, R.A. Competitors must have occupied offices in Birmingham for the past six months. Closing date October 12.

Cinema at Bury.

Super-Cinema for Bolton Street, Bury, Lancs. Full particulars from Mr. J. Arnold Crabtree, Manager, Castle Picture Palace Co., Ltd.

Harrogate War Memorial.

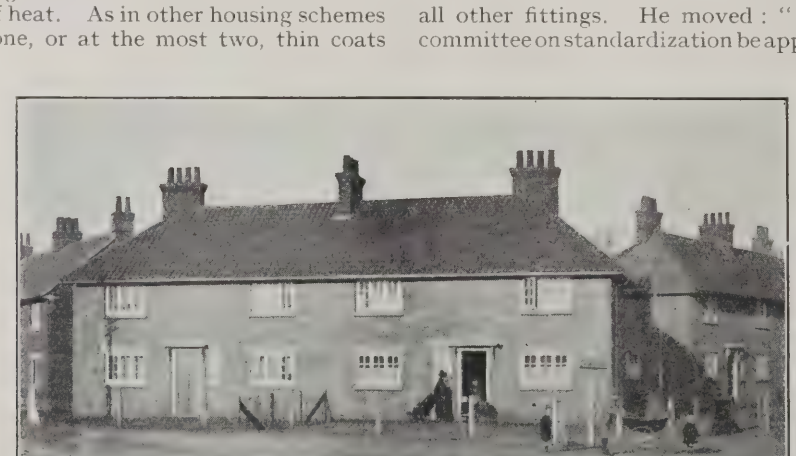
War Memorial at a cost not exceeding £5,000. Premiums : £100, £50, £25. Particulars from Mr. C. E. Rivers, A.M.I.C.E., Borough Engineer, Municipal Offices, Harrogate. Closing date Dec. 1.

Housing Schemes at Norwich

One of the most enterprising attempts to solve the housing problem by direct labour is being carried out at Norwich, where the City Council is faced with abnormal unemployment difficulties, as well as with a great shortage of houses. A scheme of 1,200 cottages has been approved as an instalment towards the total number required. The first eight to be completed were built on the continuous cavity system with "Winget" blocks, and opened by the Lord Mayor of Norwich. These are included in the 144 houses which are being erected, in pairs and groups of fours, on the Angel Road Estate, about a mile from the heart of the city—one of the four sites purchased by the City Council for its immediate housing needs. The city engineer and surveyor, Mr. Arthur E. Collins, M.I.C.E., whose department is carrying out the whole of the work—with Professor S. D. Adshead, F.R.I.B.A., as consulting architect—and who has been assisted in the house-planning by the deputy city architect, Mr. William H. Town, A.R.I.B.A., has erected "Winget" buildings some years ago with other housing schemes which he carried out for the Norwich Corporation. Among these were the cottages built at Whitlingham Sewage Farm with concrete blocks made on the "Winget" Standard 32 in. machine, with an aggregate of gravel raised on the site, and the foreman engineer's house at Trowse Sewage Pumping Station. These were all completed some six or eight years ago.

The one machine which made the blocks for the older buildings, is turning out at the present time 32 in. by 9 in. by 9 in. blocks for a bridge which the Corporation is building across the Midland and Great Northern Railway at Drayton Road. It has been responsible in the same way for all the new "Winget" houses on the Angel Road Estate. These have clean, substantial walls, white window sashes, and door frames, and warm red roofs covered with pantiles. The blocks have been left just as they came from the machine, with a "Sparrow Pecked" face. The inner and outer leaves of the walls are each 4½ in. thick, with a 2 in. cavity, the cavity being made without ventilating openings in order to secure non-conduction of heat. As in other housing schemes only one, or at the most two, thin coats of plaster were put upon the internal walls before finishing with distemper, the sculleries being only pointed and limewashed.

All the houses on the estate are of the parlour type, with three bedrooms and the usual offices. The basic price for the erection of each house, agreed to by the Ministry of Health on April 15, 1920, was £850, but later increases in the cost of labour and material have brought this up to some £877. The demand greatly exceeds the supply, but in allotting the houses as soon as they are ready preference is being given to ex-soldiers, especially those with families. At present they are let at 12s. 6d. per week, including rates, but this is subject to any alteration that may be made when the tribunal has fixed the price for an economic rent.



TYPICAL CONCRETE HOUSES AT NORWICH.

Architect and Librarian

Mr. John Ballinger, librarian of the National Library of Wales, in a paper read at the Conference of the Library Association, pleaded for the standardization of library appliances. According to Mr. Ballinger, architects of library buildings hardly ever consult the librarians; whereas, in his view, a library should be an edifice built up around the library shelf. "In many instances," he said, "library buildings are planned without any regard to the bookcases, with the result that the fittings have to conform to the eccentricities of walling, windows, heating-pipes, and other accessories. It ought to be exactly the other way round. The placing of the bookcases and the windows to light them should be the first and chief consideration. To bring this about it is essential that agreement should be arrived at with regard to a unit of length, width, and thickness for a shelf and the height of the bookcase, the dimensions of the plinth to keep the books clear of the floor, the cornice to keep out dust at the top, and the thickness of the ends and the intermediate uprights. Once these details are agreed the designer of a library will have fixed data to work upon, and a standardized bookcase will be arrived at with shelves all uniform in length. Subject only to the variation in width, any shelf should fit any bookcase in any standardized library."

Mr. Ballinger also pursued the same ideal of standardization and uniformity in all other fittings. He moved: "That a committee on standardization be appointed to report to the next conference on practicability of applying the meth library fittings and other appliances to submit proposals and suggestions the standards to be applied."

Mr. E. A. Savage (Coventry) supp standardization on grounds of u He thought, however, that the re tion should not call for a report b next conference, as experiments have to be undertaken. Dr. Bak the London School of Librarian thought that there was much "s work" to be done by librarians b standardization of shelving, etc., sorbed their attention.

Mr. Ballinger agreed to modif resolution so as to make it a requ the council of the association to ap a committee, and to omit the dema proposals and suggestions. In this the resolution was adopted by a majority. Mr. Ballinger's parting was: "The basis of all library bu should be the unit of length of a li shelf. If a standard could be adopt that point it would influence the ture of libraries throughout the for all time."

Manchester Municip College of Technolo

The University courses in the Mun College of Technology, Manchest the session 1921–22, begin on Octo The work of the college includes: Ad ed study and research in various bra of science and technology, and Univ courses in the faculty of techn extending over three years and le to degrees and certificates in arc ture, mechanical, electrical, and sa engineering, applied chemistry, an textile industries. Part-time day c have been arranged for apprentices employers allow them to devot whole day per week to study; as w part-time evening courses, inv attendance on three evenings a we five years. Other part-time class advanced study and research, or i paration for the external degrees University of London, or in technol or trade subjects, or in various bra of Natural Science, or in other su have also been arranged.

Students who, having passed Matriculation Examination or its e lent, satisfactorily complete a three University Course become entitled degree of Bachelor of Technical S (B.Sc.Tech.). Students who, inst having passed the Matriculation E nation, have passed the Entrance ination or its equivalent before en upon their University Course, b entitled, upon satisfactorily comp the course, to the Certificate of the U sity. The degree of Bachelor of T cal Science or the Certificate of the U sity carries with it the title of Ass of the College of Technology. A years' course of advanced study a search prepares Bachelors of Tec Science for the higher degree of Ma Technical Science (M.Sc.Tech.), students who have obtained the cate of the University for the Univ Certificate of Distinction.

The professors and lecturers on tecture and building construction

s: Messrs. Archibald C. Dickie, Manchester), A.R.I.B.A., Professor hitecture in the University and in ollege; F. E. Drury, F.I.S.E., Lecturer in Building Construction University and Head of the Build- partment in the College; P. Morrey, Tech. (Manchester), A.R.I.B.A., ant Lecturer in Building Construc- the University and in the College; . Lindsay Grant, Demonstrator in ectural Drawing and Design in the rsity. Prospectuses may be obtained he Registrar.

asgow Ideal Homes Exhibition

Kelvin Hall, Glasgow, is again the of an interesting exhibition, opened 21st of this month. The title has ar been altered, but the character exhibits, which include all housing als and equipment, remains more unaltered.

two model cottages which consti- prominent feature of the exhibition een erected by Messrs. Jas. Jones ons, timber merchants, Larbert, he Scottish Concrete Block and ery Co., Ltd., Glasgow, respec- The home-grown timber house ccommodate ten persons, and is cted of various native woods. n tiles, or shingles, have been used any advantages are claimed for pe of roof, which will, it is claimed, erly looked after, last for 150 years. concrete cottage is constructed of al stone faced blocks of a special o ensure a dry and healthy interior. anufacturers state that the materials ch the blocks are made improve with e hardening process carrying on lly for from twenty to twenty-five The houses are designed so as to e the minimum amount of expense for and upkeep. The cottage shown smallest of the types, but arrange- are being made to build houses of four, five, and six rooms.

window frames have been supplied ssrs. The Crittall Manufacturing td., Braintree, Essex, who also stand showing their metal windows ry class of building.

icularly worthy of note among the s are the following :—

ES MEIGHAN AND SON, Glasgow.— oined exhibit of window blinds and s, and electrical fittings and s, including lamps, fancy shades, and heating utensils, etc., etc.

RAGE AND BENTLEY, Glasgow.— raft for the home. Every article is a speciality in so far as it is the e of the originality and particular lly obtainable by the craftsman. esired design can be copied or d according to requirements. The as opened a new department for with plating in gold, silver, copper, tc., and bronzing, colouring, etc.,

ISH EVERITE AND ASBESTILITE , LTD., Glasgow. — An "Ideal garage for two cars with work- ttached constructed entirely of te" and "Asbestilite." The build- nade in sections so as to be easily portable, it is a tenant's fixture, and is fitted with "Everite" asbestos-cement gutters and downpipes.

THE FALKIRK IRON CO., LTD., Falkirk. —The "Osborne" patent self-setting combination grate. Also the "Compax" patent interior with oven. Both these are being largely used for living rooms in housing schemes all over the United Kingdom. New designs of "Falco" electric cooker for housing schemes and of "Falco" electric heaters. Special exhibit of good class rustless steel fireplaces.

BELL'S UNITED ASBESTOS CO., LTD., Glasgow.—"Poilite" asbestos cement roofing tiles and wall and ceiling sheets. Red and grey diagonal tiles and ridging. Red and grey pantiles. Corrugated sheets, Roman type roofing tiles, flat sheets for external and internal walls and ceilings, Hurcan slabs.

THE NORTH BRITISH RUBBER CO., LTD., Edinburgh.—The stand itself is covered with "Paraflor" rubber carpeting, the new floor covering which it is claimed is as cheap as high grade linoleum, but which is practically everlasting. This new rubber carpeting is made in a variety of colours, requires no special laying, and has already been laid in many large institutions, etc.

GILLESPIES, LTD., Bonnybridge. — Manufacturers of ranges, registers, interiors, mantel registers, American and Anglo-American cooking and heating stoves, portable wash-house boilers, rain, water and soil goods, W.C. cisterns. The "Chattan" low pressure hot water system can be used either with coal fire or with gas oven or cooker.

SMITH AND WELLSTOOD, LTD., Bonnybridge, Stirlingshire. — Patent "Esse" heating stoves for anthracite, patent "Wellstood" ranges, portable cooking ranges, patent "Hydresse" boiler for domestic hot water supply.

CUIRASS PRODUCTS, LTD., London.— The exhibits shown comprise several kinds of waterproofing material: No. 1: Anti-corrosive, anti-fouling, insulating paint, for anything metal, wood or stone, will take distemper or wall-paper; No. 6: A liquid proofing for waterproofing any type or roof or exterior damp wall; No. 18: A black putty for joints, cracks, etc.; No. 14: An efficient wood preservative.

WILLIS HEELEY (Clarkston), Glasgow. —Tiled wood fibreboard, is prepared for enamelling and when fixed to walls and ceilings of bathrooms, sculleries, and dairies gives a tile effect which can be scrubbed, kept clean and hygienic. Wood Fibreboard.—"Beaver Quality" is a permanent lining for walls and ceilings.

MOLER FIREPROOF BRICK AND PARTITION CO., LTD., London. — Fireproof bricks, partition slabs, etc., for interior building of walls, partitions, floors, etc., special bricks for reinforcing concrete for arches, vaults, etc., high porous bricks for boilers, etc. Also Moler heat-insulating composition for covering boilers, steam pipes, etc.

CARRON COMPANY, Carron, Stirlingshire.—"New Carron" range with tiled covings and glass door to oven; "Ulster Carronade" range; "Carronette" range; "Stenhouse" grate; "Interwoven" grate, and several fireplace suites.

Church Architecture and Organs

At the Congress of the National Union of Organists' Associations at the Royal College of Music, Sir Charles Nicholson, F.R.I.B.A., giving an address on "Church Architecture and Organs," said that our churches had suffered very much architecturally from misguided but well-intended additions made by organ builders. Many blunders and much disappointment would have been avoided in many of these cases had a competent architect been consulted. The architectural result was comparable with the music which would be produced by an orchestra in which each instrument was tuned to a different pitch.

Difficulties arose in the case of almost every ancient church, but they could, as a rule, be overcome in good-sized buildings. When one came, however, to the smallest class of village church, where there was really no room for an organ at all, except for one of the positive organs, it was to be wished that some sort of instrument could be invented that would fit into such buildings without disfiguring them and yet would be better to listen to than a harmonium or organ. He often had thought that if a two-manual instrument could be constructed, one manual operating a set of piano strings and the other a set of reeds or organ pipes, it would go a long way towards solving some of the difficulties of providing a satisfactory accompanying instrument in a small church, or possibly in a large church.

In dozens of parish churches the fatal mistake had been made of placing the organ in one of the aisles or chapels flanking the chancel. This was absolutely destructive of the architectural effect of many fine church interiors. An organ so placed was deprived of the immense advantage of having plenty of open space around it. If he were responsible for placing an organ in an old church, and circumstances necessitated its being placed at the east end of an aisle, he should strongly urge the authorities to be content with a small organ, and to place it standing free in the aisle and not in the corner of the church. Every organ should have a substantial case, and the whole instrument should be placed on a gallery.

Classes in Building

The evening classes in connection with the London County Council School of Building reopens this week. The prospectus divides the work of the school into five parts: Section I., trade subjects (workshop practice and theory); Section II., lectures and classes in building construction and allied subjects; Section III., surveying; Section IV., structural engineering; Section V., architecture and drawing. Importance is attached by the Council to the practical combination of the studies in the several trades and branches as required by a master builder, foreman, or architect, and an architectural director of the school has been appointed for the purpose. The Cripplegate Institute programme for the winter is now published, and proves to be as instructive and interesting as in the past.

The Week's News

New Masonic Hall for Shiremoor.

Plans for the erection of a Masonic Hall at Shiremoor have been passed by the Earsdon Urban District Council.

Alyth War Memorial.

The war memorial at Alyth has been completed from designs by Mr. Riddel, R.S.A., of Edinburgh. It is constructed of native whinstone.

Architects Visit Exhibition.

A deputation of British architects and engineers belonging to the British National Housing and Town Planning Society has visited the shipyards and Colonial Exhibition at Marseilles.

Old Palace Yard, Coventry.

An appeal is being made for funds to purchase for the diocese Old Palace Yard, a fifteenth-century relic surrounded by old buildings of unusual historic and architectural interest.

Welsh Slate Quarries Purchased.

A London syndicate has purchased the Blaenau Festiniog Slate Quarries, North Wales. They will be extensively developed, and afford employment to a large number of quarrymen.

Port Improvement at Nanking.

It is proposed to erect at Pukow on an extensive water-front a system of wharves, cranes, and godowns and railway facilities. A French engineer, Monsieur Francois, has been specially engaged for the carrying out of this scheme.

Woodbury Drainage Scheme.

At an estimated cost of £2,500 a drainage scheme for Woodbury has been placed before St. Thomas Rural Council by the sanitary inspector. It was decided to place the plans before the Parish Council.

Newport Hospital Extension Scheme.

The directors of the Royal Gwent Hospital at Newport have provisionally accepted a tender at about £38,000 from Mr. R. W. Moon for building a new outpatients' department and dispensary as part of the scheme for the general extension of the hospital.

Old London Bridge.

Bermondsey Borough Council have offered to provide a site at Southwark Park, Rotherhithe, for the arch of the first stone London Bridge (erected in the thirteenth century), which was discovered in the course of some excavations recently.

Aylesbury War Memorial.

Aylesbury war memorial, recently unveiled, consists of a replica of Sir R. Blomfield's Cross of Sacrifice, as designed for the battlefield cemeteries in France, with bronze electric lamp standard, and bronze chains and posts enclosing the space in front of a parapet, on which are bronze plates bearing the names of the fallen.

Big Improvement Scheme for Billingham.

It is hoped that the Billingham sewerage scheme may be utilized in providing work for some of the unemployed, and the Stockton Rural District Council has agreed to request the Ministry of Health to give early consideration to the Council's application for a loan of £40,000, so that the scheme may be proceeded with at once.

Notts Town Planning.

With the development of the coal area in Notts it is suggested by the Ministry of Health that all the local authorities in the district should combine and adopt a town planning scheme. A conference has been held, at which representatives from local authorities were present. A number of suggestions were made for the consideration of the authorities concerned.

Rhyl Pier.

At a meeting of the Rhyl Council, the surveyor, Mr. A. A. Goodall, stated that the pier was in a deplorable state of rust, and in many cases the girders were deficient in strength to carry any load beyond their own weight. He estimated the cost of making the pier temporarily usable at £5,000, and the annual cost of maintenance at £925. It was decided that there will be an immediate application for sanction to borrow the £5,000.

University News.

Mr. John A. Rosevear, P.A.S.I., Assoc. Member of the Town Planning Institute, of East Sheen, S.W., has passed the special examination recently held by London University for the Diploma in Town Planning and Civic Engineering of that University. Mr. Rosevear secured the Certificate of University College in the same subjects in 1915, taking first place in the examination, and has now obtained one of the first two diplomas granted by the university.

Hucknall Reservoir.

An inquiry has been held by the Ministry of Health into the application of the Hucknall U.D.C. for sanction to a loan of £30,000 for the construction of a 10 in. rising main and a large storage reservoir. The scheme was explained by Messrs. W. H. Radford and Son, of Nottingham, the engineers. At the inquiry some opposition was met with in connection with the site for the new reservoir. The present reservoir and pumping station were afterwards visited by the inspector.

£50,000 Government Reward for Oil.

Petroleum shale has for many years been worked in Australia, and it is known that the strata in which petroleum is found exists in large quantities. Prospecting for oil is being vigorously conducted throughout the Commonwealth in consequence of the £50,000 reward for payable deposits offered by the Federal Government. The search in each State promises to be thorough. A State Act of Western Australia in addition provides for the issue of licences to prospectors for oil with liberal rewards for discoveries in payable quantities. The quantity of oil to be recovered before the Federal Government's reward can be claimed is stated to be 50,000 gallons.

Archæological Mystery in Lon

In a lecture on Southwark Ca and its historic neighbourhood, th T. P. Stevens referred to a door the Norman style almost oppos John's Church, Waterloo. In the below the jeweller's shop are tw and bent Gothic arches with dee mouldings, the shafts in the jambs well-cut, foliated capitals. On th level is a large Gothic archway, well-moulded square head over circles and sprandrels. In the wa adjacent building is a three-light of the Decorated period, the glass of which has disappeared, tracery is intact. Mr. Stevens sa he had studied mediæval maps district, but had been unable to d any historic building upon the site

Housing Progress in Scotlan

The following figures show the p that has been made in State-aided schemes in Scotland to 31 August,

Permanent houses completed	..
Temporary houses completed	..
Reconstructed houses completed	..
Houses built under the Private Subsidy Schemes	.. ..

In addition there are 13,466 under construction, of which 1,8 being built by private persons w aid of the Government subsidy total amount paid by the Scottish of Health in respect of the 807 completed under the private schemes is £195,526 13s. 4d.

The Garden Cities and Town Pla Association.

The Council of the Associati arranged to hold during the autu winter a first series of illustrated on the Great Cities of the World. lectures will be given monthly at College, London, by well-known The object of the series is to st interest in the study of towns a broader aspects of town planning first three will be as follows :—

Thursday, October 13, at 5.3 "The City of Jerusalem." Le Professor Patrick Geddes; Cha Viscount Burnham, C.H.

Thursday, November 10, at 5.3 "Amsterdam—Past and Present." turer : Dr. H. P. Berlage (Presiden Dutch Society of Architects); Cha Sir Walter Townley, K.C.M.G British Minister at the Hague).

Thursday, December 8, at 5.3 "The City of Milan." Lecturer : announced later); Chairman : His lency The Noble Cavalier Giac Martino (Italian Ambassador in L

Lectures on Washington, Brussel gow, and Tokio will be given durin

The lectures will be illustrate diagrams, models, and lantern slid will be followed by discussions.

Tickets of admission, price 2s. 6 lecture, to be obtained from the Se Garden Cities and Town Plannin ciation, 3 Gray's Inn Place, Gra W.C.2.

Wednesday, October 5, 1921. Vol. LIV. No. 1396

THE ARCHITECTS' JOURNAL & Architectural Engineer

With which is incorporated "The Builders' Journal"



A GEORGIAN PERIOD DOMESTIC FRONT IN THE HIGH STREET, STOKESLEY, YORKS.

(See Article on page 399.)

27-29 Tothill Street, Westminster, S.W.1.

Architecture of the Eighteenth Century. 17.—Georgian Shop Façades off the High Street, Stokesley, Yorks



THE
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Notes and Comments

Mr. G. Northover Retires

THE retirement of Mr. G. Northover from the administrative staff of the R.I.B.A. will be keenly regretted by every member. He had seemed to become integral with the Institute, ch he has served so ably and so loyally for eight- - twenty years — for more than a quarter of a ury, and but little less than the tale of years that is ularly reckoned as "a generation." Never to have ed a meeting, nor, indeed, to have been absent from ness for a single day during all that period, is in itself ost remarkable record; but far exceeding it in vital rest is the expansion of the Institute during his tenure rvice. The membership is now more than three times numerical strength to which it had attained when, in , Mr. Northover's services were secured. Modest to a t, he would not dream of claiming the slightest credit ny fraction of this notable increase; to which, however, entirely faithful and in nowise perfunctory discharge is duties, especially those relating to the editorship and luction of the R.I.B.A. Journal, must certainly have ributed to a considerable degree; for he has conducted ith sound literary judgment, as the President has said phrase free from all taint of adulation, and has thereby e it an effectual agent in the healthy and vigorous lopment that coincides with his service.

r. Northover joined the staff at the time when, at the estion of the then President, Mr. J. Macvicar Anderson, S.E., the R.I.B.A. Journal was started, incorporating perseding two other Institute periodicals that recorded ss frequent intervals, and much less adequately, the eedings of the Institute. Mr. Northover narrowly ed having for his first president, as for his last, a Water- e; but Mr. Alfred Waterhouse, R.A., had been, in 1891, eeded by Mr. Anderson, who in 1894 made way for Mr. . Penrose. In 1878 Mr. Alfred Waterhouse, and in Mr. Penrose, had been awarded the Royal Gold Medal sufficient proof, if any were wanting, that architects become presidents because they are famous, as well as ire fame by being made presidents. Indeed, a glance n the list of past presidents is convincing that none but of high achievement as architects ever attain to the dency of the R.I.B.A. To each and all of those who reigned in Mr. Northover's day—"and generation," ay be pardoned for adding—this claim will be freely eded. They are fourteen in number, and each of names stands high in architectural annals. There been in all, since 1835, twenty-nine presidents; so that Northover's service coincides with the election of nearly the total number; and proud he must be to have been ght into personal association with a galaxy comprising ose*, Aitchison*, Sir William Emerson, Sir Aston b*, Belcher*, T. E. Collcutt*, Sir Ernest George*, ard Stokes*, Sir Reginald Blomfield*, Ernest Newton*, , J. W. Simpson, Paul Waterhouse. Of this number, derably more than half (that is, nine out of fourteen— whose names are here followed by an asterisk) have awarded the Royal Gold Medal.

ring the war, whilst the secretary was away under arms, Mr. Northover carried on in his stead at No. 9 Conduit Street, and the cheerfulness with which, amidst many grave difficulties and at much personal sacrifice of comfort and even of health, he shouldered this additional heavy burden will always be remembered with admiration and gratitude by those members who have been associated with him in the administrative work of the Institute, or who have had opportunities of seeing him perform his share of it. Well has he earned the rest which he is now allowing himself; and it is earnestly hoped that the strenuousness and the anxieties inseparable from those terrible war years may have left no permanent ill-effect on his health. He will be greatly missed from No. 9 Conduit Street, and by none more than by the conductors of this JOURNAL, who are indebted to him for his unfailing courtesy and goodwill extended to them and to their representatives from its commencement two years after he had entered upon his long career of unobtrusive, but entirely honourable, service with the Institute.

"Waiting for a Move"

That states the case as precisely as concisely. It is the heading to a very helpful letter that Mr. N. Grattan Doyle, M.P., has addressed to "The Times." In his opening paragraph he makes a palpable hit. He suggests that some at least of the unemployment that has become so serious a problem is due to over-nervousness in business. This is a parallel, if not an identical, idea to that which was emphasized last week in this JOURNAL, in the article, and in a letter from a correspondent, on the vital importance of endeavouring to revive public confidence. Mr. Doyle undoubtedly touches the spot in attributing to this over-nervousness "a greater stagnation of industry than need have been the case." Architects are quite convinced on this point, and are glad that Mr. Doyle has made the truth so public and so plain. Traders are doing no good by "shutting themselves up in Fort Funk," as elderly military officers phrase it. Mr. Doyle cites the courageous conduct of the proprietors of two large tinplate works in gallant little Wales. These works, having stood idle for several months, have now reopened "to make an effort to set the wheels of the industry once more in motion," and he adds, "The theory on which this action has been taken is not so much the idea of making profits, as that industry will never be restarted so long as no one makes a move to restart it." Then follows a neat little homily based on the crudest elements of so-called political economy, but nevertheless serving to make the present position clear to the thoughtless or the forgetful: "So soon as any number of men acquire purchasing power, so soon will they transfer it to someone else. If Jones, formerly unemployed, suddenly receives wages, he will demand the services of Smith, in another trade. Smith, immediately on being thus put into employment, will make a demand on Robinson's trade, and Robinson will repeat the process somewhere else. Thus it will percolate through the whole community, and it will be all new demand." Before dismissing these banalities with contempt, it will be wise to inquire whether traders have not lost sight of root principles, and whether, after all, bald truisms are not really

more effectual than brilliant but newly revealed truths. Hence a certain amount of force may be credited to this homely restatement of palpable facts : "We shall do nothing to help industry by sitting still and waiting for something to turn up. Someone has got to make a start, and get us out of that vicious inactivity which is making us all sit tight till the other fellow makes a move. Industry lives by movement." Homely but trenchant truisms like these are much more effectual in the ears of practical men than much philosophizing or much eloquent rhetoric would be. They should convince Sir Richard Strachan that to wait for the Earl of Chatham, and *vice versa*, is to fight a losing battle. This argument, and those colloquially expressed truths from Mr. Doyle, should stir up the sluggish client to immediate action. It is difficult to see what he is waiting for—to understand why he does not at once commission the architect to put in hand the building work and the renovations that must cost the more the longer they are delayed—not because prices are likely to rise, although they are just as likely to rise as to fall, but because neglected repairs, for instance, exact a heavy interest on arrears—they go from bad to worse in a facile descent, and at an ever-increasing rate of cost. "A stitch in time saves nine," and a timely slate may save a rafter from rotting.

Ireland's Northern Parliament House

The Ulster Society of Architects is up in arms. It alleges that the R.I.B.A., having been asked by the Treasury to advise as to the designing of the proposed Parliament buildings for Northern Ireland, has recommended a competition to be limited to six well-known architects, "presumably," it is added rather gratuitously in the Ulster Society's protest to Sir James Craig, "selected from the personnel of that body." This particular passage is unworthy of the general tone of the letter, with the general tenour of which we must confess to being in complete agreement. For the pleading is not that of boycotting all "foreigners," which is the kind of claim that Irishmen seldom miss an opportunity of advancing, but is a perfectly reasonable demand for an open competition. "It is held," the Society writes, "that it is essential that, in a matter of such importance, every architect in the United Kingdom should have an equal opportunity to compete, and that the result is more likely to obtain the best possible design." They deserve to get it, if only for the fairness of their claim.

In the Devastated Regions

American architects have stolen a march on us. For six months fifty American architectural students, and a further number of young architects, have been arranging reconstruction work in the devastated areas of France. In Soissons they have planned four schools, formed several ruined areas into playing-fields, and replanned several small towns in the outlying districts of the Aisne. At Reims they have planned several schools and a tennis-court, and have arranged for the building at Verdun of several schools, a church, and numerous houses. Our own young men are very envious of the opportunities enjoyed by their American cousins. Immediately after the termination of the war, it was given out in most positive terms that French architects and no others were to be employed in the works of reconstruction. Our British architects, taking our French allies at their word, have refrained from offering services that were rejected in anticipation; but it would seem that young American architects either did not hear of the prohibition or have pertinaciously disregarded it. Anyhow, our young fellows are feeling very sore about it, and are anxiously inquiring whether their forlorn case is past remedy. It is to be supposed that they could retrieve the misfortune by taking prompt action to get into touch with the work before the Americans have quite finished it all. Let our young architects who would like to take up this work get the A.A. or the R.I.B.A. to organize promptly a strong committee of ways and means, including, of course, provincial as well as London members. Spring, we imagine, is the best time to begin the actual work, but no time sh be lost in arranging the preliminaries. France, we are would warmly welcome the return of our young men t devastated regions where most of them have been befo a very different errand.

Two Great Fires

Of the two great fires that occurred on the Continen week—one at Delft and the other in Paris—the form much the less explicable. It destroyed almost compl the Oudekerke, or Old Church, a Gothic building o fifteenth century, but standing on the site of a much e church. To produce so fierce a fire the interior wood must have been as dry as tinder. Those who are a how common a fate it is for a church to perish by fir not be surprised at the fate of the Oudekerke at The Old Church, which falsified its name by being a years younger than the New Church in the same although of the same century, stood opposite the Prinse a former palace of the Princes of Orange, and it cont the tomb of the illustrious Admiral Tromp, who di 1653. The famous Delft ware lost its vogue with colle when it ceased to be made by hand and was proc wholesale by machinery in factories. The fire at the Grands Magasins du Printemps is said to have burn three million pounds worth of stock; but while such im ate estimates are never very trustworthy, there can doubt that the destruction of so extensive a buil packed as it was with highly inflammable goods, sor them very costly, must entail immense pecuniary The details of the rebuilding of such huge premises w studied with close interest by all who are concerned the design or maintenance of similar stores.

Advice to Those About to Build

It is not, "Don't," but is in effect, "Do by all mean set about it in the right way." How to do it is show circular that has been drawn up by the Committ Public Information of the Minnesota Chapter of the A can Institute of Architects. (By the way, similar co tees could do good work for the R.I.B.A. and for the Builders' Federation—each from its own special s point taking its share in the education of the pu While in this American circular there is much val advice to the prospective building owner, the docu cannot be recommended for close imitation in this co If the idea were adopted here, all substance would b in a very different mould. The matter might remain as it is, but the method of presenting it would be g changed; so much virtue still inheres in style and treat It is unimaginable, for instance, that a British circu information could lead off with : "The client must fi all assure himself of the character of the man who is the architect." It is a great thought and a wise preca but will certainly be classed by the British architect a "the things that might have been expressed differe That is, from the British point of view. No doubt our A can friends find entirely to their liking the bluntnes directness that characterize the document throug but the British reader will feel that its best item quotation from Ruskin with which it concludes. Nev less, the circular as a whole will be read with great in on this side of the water; and a document with similar as regards most of its message, but omitting certai sages that are irrelevant to British practice, is the likely to be circulated now that a lead has been show British being nearly always reluctant to move with precedent to which we can point in vindication.

Mr. Frank Gatley Briggs, F.R.I.B.A.

As we go to press we learn with deep regret death of Mr. Frank Gatley Briggs, F.R.I.B.A. (p in the firm of Briggs and Thornely, of Liverpool), occurred quite suddenly at the Palace Hotel, Birkda Wednesday last. An account of Mr. Briggs's very guished career is unavoidably held over until our next

okesley : A Typical Yorkshire Market Town

By GORDON HEMM

HE market town of Stokesley in the East Riding of Yorkshire is characteristic of the many delightful towns to be found in that part of the country. The attractiveness of the place is due to its e setting, the harmonious blending of its architectural s, and the distinct individuality of its many façades. e name "Stokesley" originated in the combination of , a wood, and ley, a field. History records that the y of Stokesley remained in the hands of the Crown l years after the time of the Norman Survey. Later granted by William II to Guy de Baliol, Lord Baliol ance, who at the same time obtained the baronies of ord and Bywell from that monarch.

kesley is located on the road from Northallerton to by, near the confluence of the small rivers Leven and , and is in the centre of a broad and fertile valley. majestic range of the Cleveland highlands lies within miles to the south-east of the town.

The town consists of one wide main street (High Street), which winds in irregular fashion from east to west along the north bank of the river Leven. A triangular tree-planted green, around which are grouped simple types of Georgian façades, forms a pleasant set-off to the main street.

The river Leven flows parallel to High Street. Lining its banks are picturesque groupings of old buildings, and open greens surrounded by quaint cottages, an exemplification of an unaffected, yet dignified, river front treatment.

The bridge spanning the river is unusual in that it is used for pedestrians only, on account of its narrow width. It contains one segmental arch, and terminates in the centre at an apex. The bridge on the north side emerges into a fairly wide street, which eventually joins High Street some distance beyond.

The simple lines of the road, which follows the river on the south side, contrast happily with the walls, gables, and roof anomalies on the north bank. The recessed open



PLAN OF STOKESLEY, YORKSHIRE.

green contiguous to the road and bridge, and surrounded by domestic dwellings, has been planned with due regard to existing features. The interspersing of masses of rich green foliage, contrasting with the lime-washed buildings and pantiled roofs, reflected in the blue waters of the river, makes a colour scheme of rare beauty.

The most conspicuous building is the Town Hall, which dominates the High Street at its widest part. This building, housing the civic assembly, was erected in 1854, the entire cost of the work being borne by the late Colonel Robert Hildyard. The elevational designs are indicative of the Italian Renaissance style, being extremely plain yet telling in effect, the result of judicious proportioning of the solids and voids. The main façade embodies a central entrance on the ground floor, with two small windows of square dimensions on each side, over which a broad band-course expresses the position of the first floor. The lowness of the ground floor treatment contrasts very effectively with the spacious wall surface above, relieved only by the introduction of the five long windows, indicating the importance of the accommodation inside, i.e., the Court Room. A bold cornice terminates the façade, and above a hipped-back slate roof completes the composition.

In the shop façades in close proximity to the Town Hall the Georgian element is strongly in evidence, and many of the architectural motifs are cleverly devised, and carried out to suit utilitarian requirements. Many of the shop-window fronts are elegant examples of design, and for delicacy of detail could hardly be surpassed.

The island site occupied by the Town Hall also contains a number of shops and other erections to the rear of that building. Accessibility to each side of this site is obtained by a wide passage-way running parallel to the minor axis of the civic building. At the south-west corner stands a building which ranks as a masterpiece of semi-domestic architecture. A portion of the building—i.e., the elevation facing west—was originally designed as a shop, but is now used for other purposes. The south elevation has a domestic appearance. One of the accompanying photographs illustrates the general character of the design, but it is only by detailed inspection one perceives the delicacy of modelling underlying the various motifs introduced by its designer.

Many of the residential houses are of great architectural merit. Several distinctive fronts are to be found at the east of the High Street. A dwelling-house comprising a bow-shaped window covering two floors, with two entrances at



A SMALL HOUSE WITH SHOP FRONT, STOKESLEY.

opposite sides, arrests attention. On the second floor t windows of medium size accentuate the horizontal li which are further emphasized by a cornice of extr refinement. The whole conception is characterized b excellence of scale consistently maintained throughout design.

There are numerous other notable compositions, fu local feeling, such as the house containing a central entra balanced by a tall bay-window motif on each side embod two stories. Numerous are the architectural achievem around this area, and it is to be regretted that space not allow detailed comment. The accompanying illus tions convey a good idea of the breadth and range of cepts displayed in Stokesley's buildings.

Most of the other notable buildings of Stokesley, suc the Rectory House, were erected towards the end of eighteenth or the beginning of the nineteenth century, are thoroughly characteristic of the local traditional of architecture.



BRIDGE FOR PEDESTRIANS OVER THE RIVER LEVEN, STOKESLEY, YORKS.



A GROUP OF OLD COTTAGES.



GEORGIAN BUILDINGS IN THE HIGH STREET.

SOME TYPICAL VIEWS IN THE MARKET TOWN OF STOKESLEY, YORKS.

The Destruction of London Squares and Terraces

With Notes on those in Islington

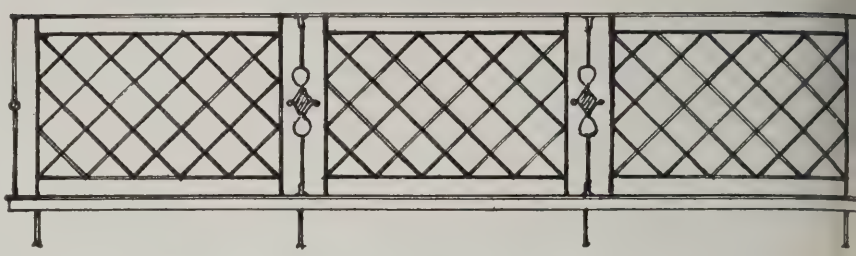
(Concluded from last week's issue.)

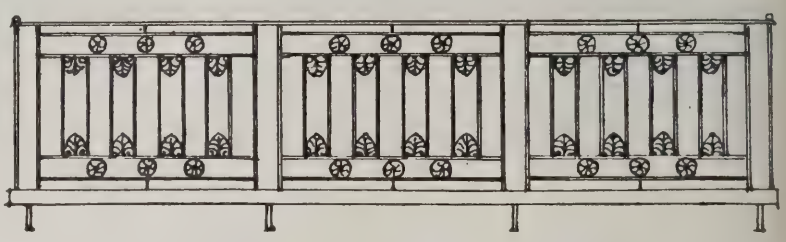
By G. LL. MORRIS

THOUGH uniformity is the keynote of the squares and terraces built in the first half of last century, the plan outline of the façades shows more variation than would be expected from a casual survey. Not only were houses varied in size in a terrace, but they were built by different owners at different times, and yet the result was homogeneous and gave an impression of a well-balanced and symmetrical lay-out.

Highbury Terrace and Highbury Place are examples. The latter consisted of thirty-nine houses, built on a fairly large scale, and varying in size, with large gardens, and some of them formerly with allotments of meadowland both at the back and front. Originally the road to it was private, and frequented only by the carriages passing to and from the several dwellings. The ground on which the place stands was the freehold estate of the John Davies who granted different parts of it between 1774 and 1779 upon building leases of about sixty years to Mr. John Spicer, by whom all these houses were erected. ("History of Islington." S. Lewis.)

A Balcony from Liverpool Road.





A Balcony from Gibson Square.

Highbury Park Terrace is another fine row of houses which gives this impression of being built at one time. Just imagine what would happen to-day, each owner with his own architect, prepared to carry out a building in any style!

It will be well to give a brief description of the arrangement of the units which make up some of the squares and terraces, and the methods which kept the frontages from becoming monotonous. Tyndale Place—it appears that the Islington Borough Council propose to erect a new town hall on this site—built towards the end of the eighteenth century, is a simple example. There are detached blocks at the ends, one composed of two, and the other of three, houses. These stand in front of the main portion of the terrace. The latter is planned with a central block of two houses. Each comprises a single house and five h between the central block and wing. projection of the latter is 4½ in., an central block 9 in.

Highbury Park Terrace has a ce block of five houses, wings of houses, and the intervening houses five and three respectively. The doors of the end houses of the wing recessed, and have projecting por At the first-floor level there is a bal to each window, except on the m block, where the balcony is contin The same plan method is followed i square. In Gibson Square, on the we side, four houses form the middle b wings three, and intervening houses The northern side consists of two of two houses and four interve Though Gibson Square is a late exa this plan arrangement is commo earlier ones, the number of houses i middle, wing, and intervening b varying according to the size of the sc or terrace. The wings project less the centre block. In the elevation centre and wings have their appro treatment, and though usually the no decided break in the treatment of house there are small variations mark off the wings from the centre the centre from the intervening hous

In Gibson Square the first-floor win in the middle block have circular h with plain brick quoins and an balustraded parapet at the eaves o roof. All the other windows are sq headed, those on the wings bein greater width, with plain brick qu and plaster pilasters on each side, ca up through the first and second floors

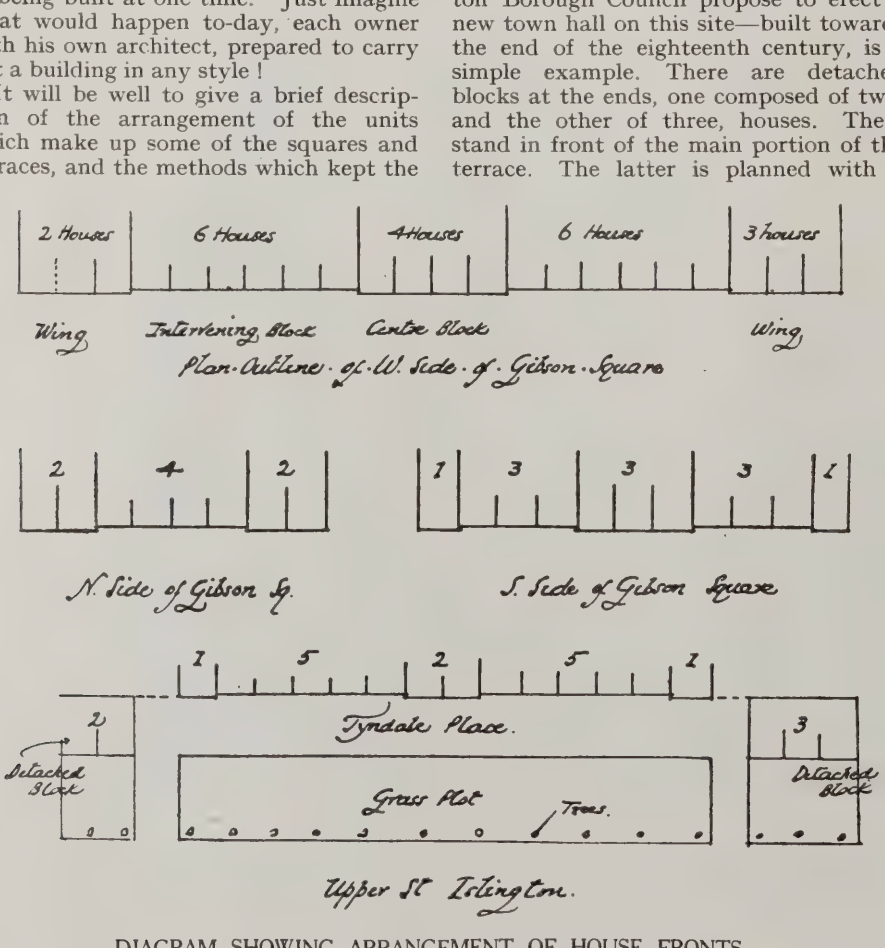


DIAGRAM SHOWING ARRANGEMENT OF HOUSE FRONTS.



HIGHBURY PARK TERRACE.

ediment over. All the remaining
vs on the first and second floors
laster architraves, and the walls
he ground floor to the first-floor
re covered with plaster channelled
ation of stone ashlar.

e variations of plan and elevation
t peculiar to Islington. A some-
imilar arrangement was adopted
rly every London district, but
re exceptions. Of these, Loraine
n Holloway Road, a terrace of
erected in 1832, is one. The
here are in pairs linked together
en walls carried to the height of
t floor. The same idea is followed
Peter's Square, Hammersmith,
ne houses there are in blocks of
and the screen wall is treated in a
laborate fashion.

worth noting that architects at
riod frequently made good use of
, either plain or architecturally
, as a means of giving unity to a
of semi-detached houses. They
opted this treatment at the junc-
f two streets. In this simple
they gave dignity and interest.
l of carrying the buildings con-
ly round from the main to the sub-
street, and planting a turret on the
s we should do, they arranged for
ises in the main street to run out
and omitted one house in the side
connecting those facing the main
nd those in the side street with a
wall or a building one story in

of the common features of these
is the iron balcony, which projects
e street or area, at the level of the
or windows, as a kind of open-air
on of the drawing-room. In
every district of London, varied
lightful patterns can be seen. The
y-fronts appear to have been cast
ions of sufficient width nearly to
a single window, and so arranged
ne, two, or three sections might be
vith other sections of a much
er width, introduced between the
nes.

hese means, balconies of varying
could be adopted, the introduc-
the small section adding variety
t might otherwise be monotonous;
pattern of the small section was
t in design, the result was often

particularly happy. The balcony-front shown from Liverpool Road is simple and effective. Another from Gibson Square is rather more elaborate in detail. The pattern from Highbury Park Terrace is unusual, though it may have been used elsewhere. These iron balconies, gate piers, and fanlights and other subordinate details of building erected between 1800 and 1830, fall short of the refinement and finish of the work carried out in the closing years of the eighteenth century, but they still keep up a good standard in design. Reproductions of the patterns made at the earlier date were used occasionally in buildings erected as late as 1835.

These houses of the London squares and terraces should be treated with more consideration and respect. They will need, too, protection in the future. If they are not carefully watched these squares and buildings are likely to be destroyed in the name of "progress."

From a list of the squares, terraces, crescents, and streets in Islington visited at long intervals by the writer, it appears that from about 1780 to about 1825 the buildings maintain a good standard in design, and that after 1800 they are very little inferior to those erected in the last twenty years of the previous century. After 1825 there is a noticeable deterioration, and in those erected round about 1850 the details are coarser, and there is a falling away from the refinement and good proportion of the earlier ones—the ironwork, for example, being very poor.

Nearly all the streets in the vicinity of Union and Arlington Squares, and also Albert and Denmark Streets farther to the west, were built about this time. They are dull, formal, and poor in detail, but could be transformed easily into gay and not unattractive streets, for they have one outstanding merit, homogeneity, which is common to all the houses of the formal classic period. The majority of the square gardens are private, and these are in the worst condition. Though the writer holds no brief for public control, the facts demonstrate that those under public bodies are at least cared for, if not particularly remarkable in the matter of design.



HIGHBURY PARK TERRACE: CENTRE PORTION



HIGHBURY PLACE

Turning from these points of detail, it will be as well to give some thought to the more general problem of the place of the existing squares, terraces, and streets in the development of London. The closer the examination the more clearly does it appear desirable to face this question. Should they be ignored, or should they be incorporated in future town-planning schemes? This problem is one which cannot be evaded. Around these squares, terraces, and crescents, and flanking many of the streets radiating from them, are the bulk of the residential buildings which can lay claim to any common and consistent architectural merit; they are the principal buildings of taste, they are also the filling in of the framework of inner London, and cover large areas.





BALCONY AND CAST-IRON PIER FROM HIGHBURY PARK TERRACE.

To regard these areas as one factor, and an important one, in the working out of any improvements in London would seem common sense. It would keep proposed schemes from hardening into an arbitrary arrangement of subsidiary streets or arterial roads, and it would tend to modify any drastic ideas not based on the actual existing facts. The Metropolitan Public Gardens Association recognize this, as well as the need for keeping a watchful eye on town planners. In its report for 1916, under the heading of arterial roads, it states that the Association obtained considerable amendments in the routes of roads proposed by the development plan committee of the London Society. As shown at first these roads greatly interfered with public spaces. (See page 10 of their report.) What is even more important, however, is that the buildings in these areas would become the standard of design for the new ones along new thoroughfares.

Let the present-day architects forgo their theories, let them accept as a practical working formula these existing squares and streets of the late eighteenth and early nineteenth century, and there might then be at least a sporting chance that the next generation would begin to realize a street architecture worthy of London. New schemes which ignore the partial town planning of the older streets and squares can only provide the means for carrying on the present architectural confusion.

It is impossible to bring order into the present chaos by sweeping on one side

CANONBURY SQUARE

the most orderly portions of London. solution can only be found in the a ance of the existing conditions, o which, by modification and adapt there would gradually emerge a formed London.

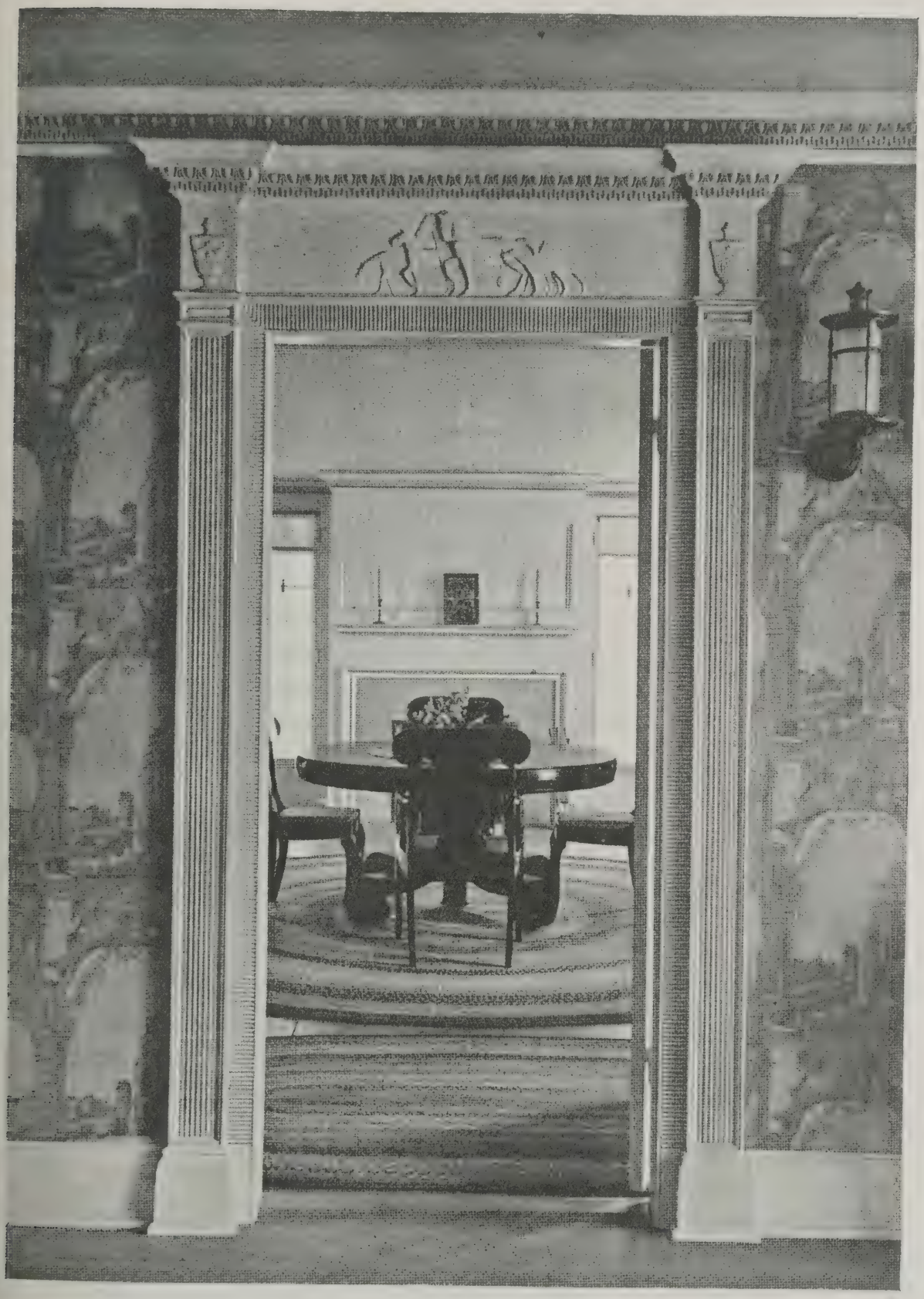
The illustrations of Canonbury, M and Gibson Squares, Cloudesley and bury Terraces, are from photograp Messrs. Schofield and Sons.

The Old Church a Delft

The most noticeable feature of t church at Delft, which has been damaged by fire, especially on the side, was the "marbling" (dating about 1800) of the voussoirs in imita a brown breccia. The stones were a deal worn before this was done, an contrast with the whitewash co every part of the structure, excep caps and bases, which show the o stone much cleaned, cannot be cons happy. However, it evidently ap strongly to J. Bostoom, as several sk of the interior by him are to be s the Mesdag and Drucker collec The north aisle held a remarkable and white marble monument to A Van Tromp, by Jacob Van Campin an extremely fine bas-relief of a battle by William de Keyser. C many monuments of this type materials in Holland, which are impressive against the whitewashed few could equal this in power of des execution. The tower, a fine caste design in brick, is considerably out perpendicular, and well placed in re to the canal, its breadth of design fo an admirable foil to the extremel and lofty spire of the new church.

Architectural Details. 12.—Doorway in a House at Bloomfield Hills, Detroit, Michigan

Electus D. Litchfield and Rogers, Architects



Internal doorcases are often spoiled by inappropriate or superfluous decorative embellishments. In the above example, conceived somewhat in the Adam manner, all unnecessary detail is avoided, a charming effect being secured by the apt use of simple elements.

Magazines of the Month

E ARCHITECTURAL REVIEW has an nteresting article on "Eighteenth-Century Bristol," with many illus-s. There is also a note of appreciа-by E. Beresford Chancellor, on , the great French etcher, the cen-of whose birth occurs during the year. His father was an English-Dr. Charles Lewis Meryon, and his a certain Pierre Narcisse Chaspouse, r at the Opéra. Born on November 21, he was brought up by his until she died insane in 1837, he entered the Naval School at and afterwards went to sea. Ten ater he returned to Paris, and, the navy, became a pupil of es and was employed at the y of War as a painter. But, an n of his eyes inhibiting further work, he took up engraving, and 50 to 1854 he produced that re-le series of etchings of the Paris d and history wherein exist "all rstery and beauty which medi-has bequeathed to a generally ss posterity." The majority of ings of Paris were exhibited in the rom 1850 to 1867, and amongst ere the "Abside de Notre-Dame," the "Pont au Change," the "Morgue," and the "Stryge." "Notre - Dame," says the writer, "lives again under his expressive truism, as a place of mysterious happenings. Looking at it, whether its twin towers rise above the Petit Pont, or whether we see it from the east with its flying buttresses spread out like the claws of some gigantic dragon grasping the ground in an ineradicable clutch, we see in it not the temple of an ancient religion, but something which the blood of succeeding ages has watered, and in which are perpetuated the crimes of the past; and the dreadful 'Stryge' takes on a still weirder aspect as it gazes enigmatically and ironically at Paris from the weather-worn cornice on which it has leant through successive ages." Towards the end of his life, Méryon's brain became affected, and he was placed in an asylum. He died Feb. 14, 1868.

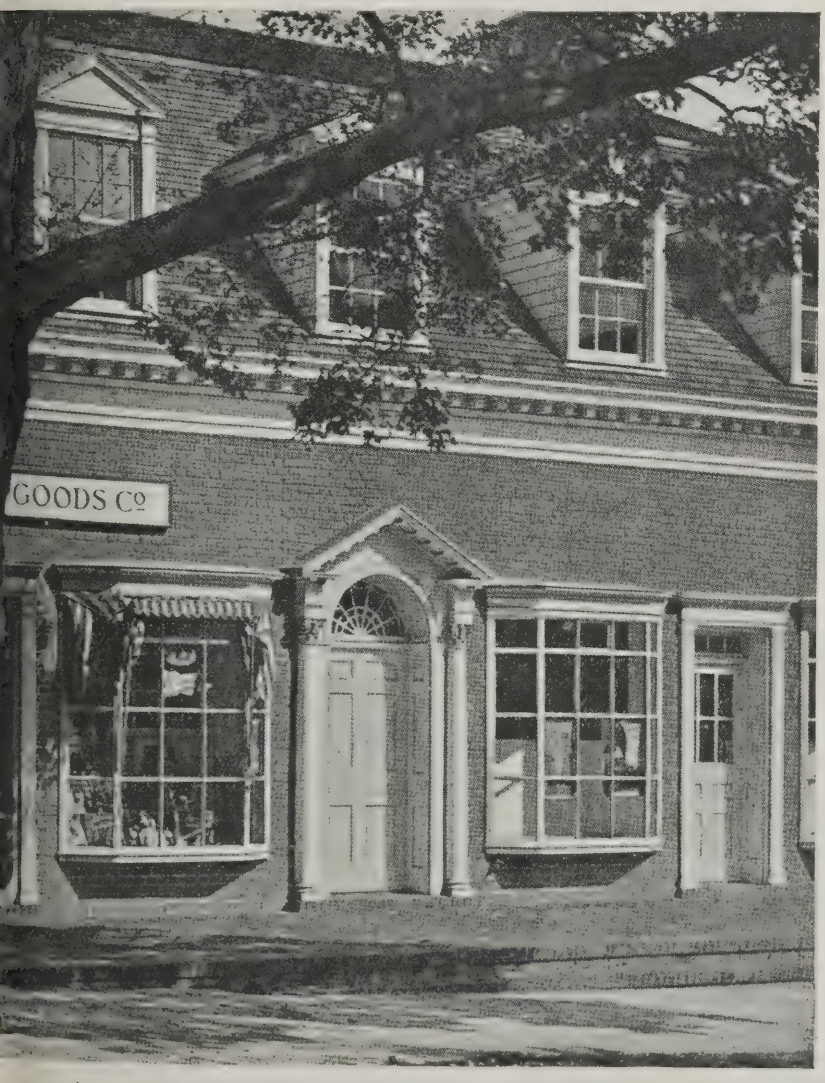
In THE NINETEENTH CENTURY the case for "Housing" is clearly and forcibly stated by Dr. Addison, who, untrammelled by office, speaks his mind freely, but not caustically.

COUNTRY LIFE has some illustrations of Early Adam Furniture at No. 19 Arlington Street, and an article on the "New Buildings at Gresham's School, Holt, Norfolk," designed by Messrs. J. W. Simpson and Maxwell Ayrton.

THE LONDON MERCURY devotes an editorial to the "Architecture of Business Premises," and in its monthly review of architecture draws attention to the danger our quiet old country towns are in of being spoiled by the appearance of "more or less bombastic commercial buildings." The writer, Mr. A. R. Powys, advocates the initiation of schools or groups in the architectural profession. "In painting," he says, "we have been bewildered or encouraged by the formation of this and that group of artists who have banded together to expel the defects that weighed on their art. These groups have had good effect. The art of painting is being strengthened . . . Is it not possible to establish a similar state of affairs in the profession? . . . I am inclined to think that in one case at least an example has been set. I refer again to the work of the L.C.C. . . The architects of the L.C.C. staff are, as far as the public is concerned, nameless. They enjoy very frank mutual criticism. These two facts have done much to produce the excellent work which has developed under the sympathetic leadership of their chief."

In THE BUILDER, under the heading "Originality in Architecture," Mr. Henry Hyams, F.R.I.B.A., puts forward a plea that we should cease to teach the old styles and cease to encourage the study of old work, and do all in our power to foster originality. "Originality," he says, "is creation, inspiration . . . the faculty by means of which the individual expresses himself and not another; an original mind is one that has more than an ordinary share in the joys of evolution, a greater felicity in futhering those changes that bring to the world advantages—real and ideal. Originality, then, is the highest mental activity of which we are capable, for upon it depends the evolution of the world. It is not necessary to point out the lack of originality in architecture and the sister arts; we can all see it for ourselves. What can we do," he asks, "to foster originality in architecture and evolve a vigorous art?" In answer he suggests four courses to be adopted: (1) to cease teaching the styles, and to cease encouraging students to study them; (2) to organize industries for service—to support the ideas of the Guilds; (3) to turn our art schools into workshops where the designer becomes a craftsman and gets into close touch with his materials; and (4) to give workmen a chance in the housing schemes of carrying out their own ideas.

THE ARCHITECTURAL FORUM, Boston, contains an article on "Some Work of George Washington Smith," an architect practising in Santa Barbara, California, who has carried on the old Spanish tradition of California in his modern domestic work. Much of his effect is obtained with broad shadows, fine wall space, and "unlaboured designing of gently sloping tile roofs at different but logical heights." "The straight line and the rectangle are the controlling factors throughout," and 'the use of exterior staircases, for



COMMUNITY BUILDING, WATERTOWN, CONN.,
ELECTUS D. LITCHFIELD AND ROGERS, ARCHITECTS
(From "The American Architect and Architectural Review")



CIGLIANO, SAN CASCIANO, VAL DI PESA, ITALY.
(*From "The Architectural Record."*)

access to second-story loggias and rooms, is made to contribute materially to the beauty of the exteriors." This broad, simple work, though unsuitable without drastic modifications for an English climate, is nevertheless extremely suggestive in fundamental principles of design. In another article in the same issue Mr. W. H. Ritter deals with "Proportion in Architecture." In his "Dictionnaire Raisonné," Viollet-le-Duc "declares that good proportions depend upon the relations between the primary and subordinate features of a structure," and enounces the well-known "theory of triangles," wherein he tries to prove that one of three definite triangles was used as the "fundamental figure of design" in classic architecture. A development of his theory has been worked out by Prof. August Thiersch, "who contends that good proportions are based upon similar rectangles, the diagonals of which are parallels," giving as one of his examples the Villa Farnesina, where the wing of the villa, the two orders, the windows, and their architraves, all form similar rectangles." Prof. Thiersch contends that "harmony in design consists in the repetition by the subdivisions of the basic figure of the structure"; in other words, in the analogy of the part to the whole. This ground figure, although not necessarily pleasing in itself, by repetition produces an effect agreeable to the observer. The simpler the relations of the parts to one another, and the oftener they are repeated, the more easily can the mind grasp the total effect. He adds, however, that mere repetition of similar figures, without contrast and variation, would soon become colourless and tedious, and that the mere application of a rule can never create a masterpiece. The writer's comments are to the point. This is not a question, he says, of mystic figures or numbers, but of psychology. "Take, for example, the checker board; everyone appreciates without effort its regularity, and would instantly detect a unit dissimilar to the rest. Likewise the windows of an elevation are arranged in horizontal and vertical rows . . . When the eye views checker board or façade, it does not travel back and forth along the horizontal or vertical rows of units, but instinctively sweeps the diagonals of these, attracted by the corners of the individual features, rather than by their fields. As each corner of a door or window is a fixation point for the eye, so every base, cap, buttress offset, or similar prominent feature, draws the attention. We call a window high or low, according to the relation between height and breadth, i.e. according to the pitch of the diagonal, which is but the resultant of these two dimensions. Through taking advantage of this habit of the eye and brain, the architect can guide the glance of the observer by the design of his structure. If he arranges cardinal points on parallel oblique lines, the eye can travel along a natural path—the diagonal—gaining at a glance the resultant, which is the relation of the two dimensions, height and breadth." Thus "no longer need the eye of the observer zigzag wearily hither and thither over a façade in the effort to comprehend its general effect. The eye will glide easily along the lines of least resistance, intentionally chosen by the architect for his purpose, and will receive one harmonious impression with that pleasure afforded by a successfu sign."

THE AMERICAN ARCHITECT, New devotes nearly an entire issue to the of Litchfield and Rogers, a well-k firm of American architects, a spe of whose Colonial work appears i issue. In the course of an inte Mr. Litchfield says: "As a result training and experience, there are basic principles which we hope a pressed in our work," of which the interesting are: (1) That the princi the dominating and logical pla buildings, as taught by the French S is absolutely basic in its corre (2) That no work of lasting and livi can be produced in architecture there be built into it the actual so affection of the architect. (3) beauty in architecture bears no d relation to cost; that it is more va to decorate with brains than with go

CONSTRUCTION, Toronto. — " scape Architecture" is often descri "Landscape Gardening" in En where it is generally left to be deal by nurserymen. Both in Canad America, however, architects consid subject an important aspect of the

THE ARCHITECTURAL RECORD, York, has a contribution by Eberlein on Cigliano, San Cascian di Pesa, Italy, an illustration of appears in our text. He gives also delightful examples of Georgian pieces in Pennsylvania.

Publications Receiv

"The Modern Painter and Deco vols. 2 and 3. By Arthur Se Jennings, F.I.B.D., Editor of Decorator," and Guy Cadogan Ro Price 22s. 6d. per vol. Caxton Pub Co., Ltd., Clun House, Surrey London, W.C.

"The Transition Spiral and its duction to Railway Curves, with Exercises in Construction and Align By Arthur L. Higgins, M.Sc., A. A.M.Inst.C.E. Price 6s. net. Co & Co., Ltd., 10–12 Orange Street,



HOUSE OF MRS. WILLARD P. LINDLEY, SANTA BARBARA, CALIFORNIA.
GEORGE WASHINGTON SMITH, ARCHITECT
(*From "The Architectural Forum."*)

Notre Dame, Paris

From an Etching by Charles Méryon



Charles Méryon was born in Paris on November 23, 1821, and to mark his centenary "The Architectural Review" publishes in its September issue an appreciation of his life and work by Mr. Beresford Chancellor. The remarkably fine etching of Notre Dame reproduced above is one of the illustrations that accompany the article, some comment upon which will be found under "Magazines of the Month" (page 407).

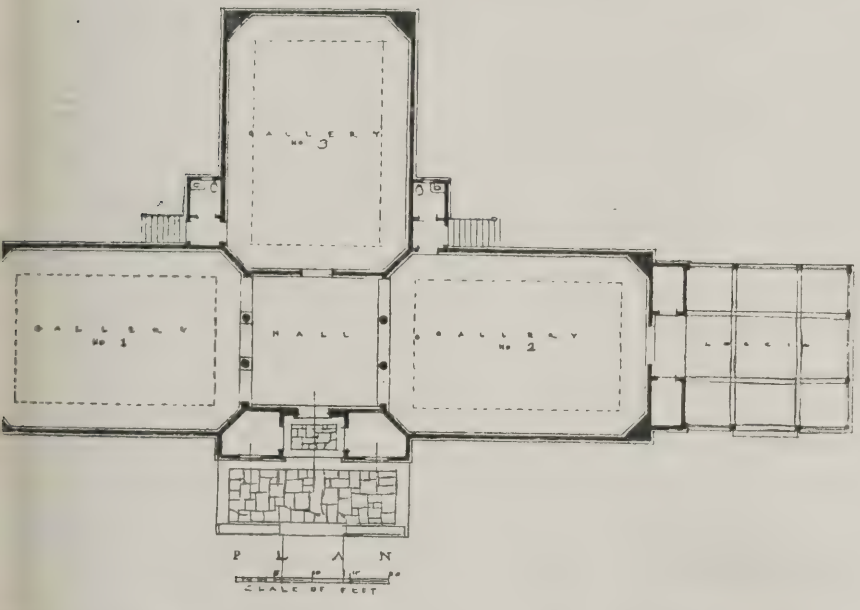
ghting of Art Galleries: A Successful Method

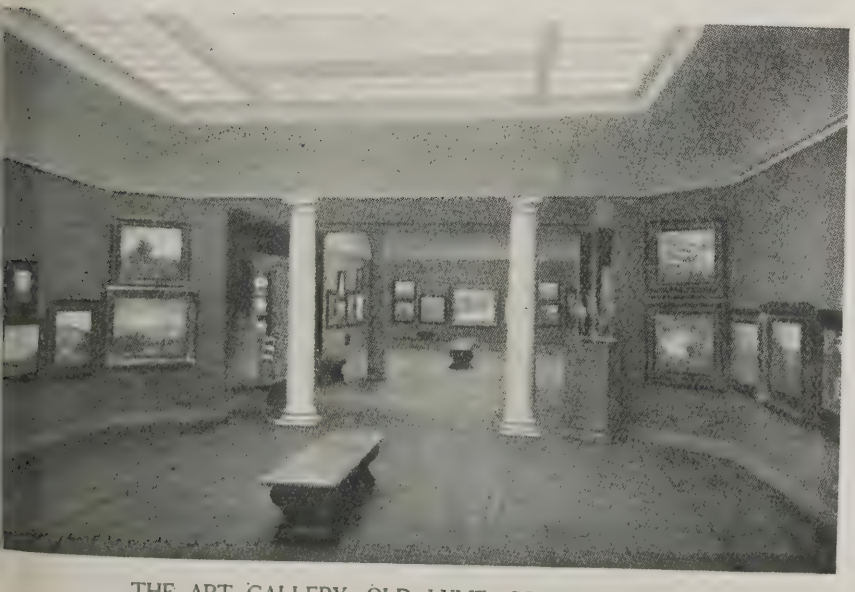
great deal of attention has been en, both in this country and elsewhere, the lighting of picture galleries, and ny experiments have been made to ire adequate illumination of the walls, le avoiding direct sunlight, and to inish as far as possible the objection- reflections of objects and people in glass covering the pictures. In an illus- ed article in our issue of August 24 dealt with the experiments carried out the National Physical Laboratory connection with the National Gallery, this week we publish some interesting illustrations showing the successful method of lighting designed by Mr. Charles A. Platt, and adopted for the Art Gallery of Old Lyme, Connecticut.

As a result of the investigations of the National Physical Laboratory an arrangement was evolved for a gallery running east and west, in which a ceiling covers the middle third of the room. Direct sunlight is kept off the pictures by a vertical screen placed outside over the ceiling. By making this of a suitable size and having it white on the north side, so as to reflect the light from the north part of the sky, the illumination on the north and south walls can be rendered equal for practically all conditions of weather. This scheme avoids a large amount of direct top light, and diminishes the sensation of glare.

As will be seen from the accompanying illustrations (reproduced from our contemporary "The American Architect and Architectural Review") Mr. Platt has devised a method of overhead lighting with a cloth ceiling screen, and this has proved so successful that not only has all trace of sunlight been eliminated, but every foot of wall space has exactly the same value. A good general idea of the method of construction may be obtained from the drawing reproduced on page 412.







THE ART GALLERY, OLD LYME, CONNECTICUT.
CHARLES A PLATT, ARCHITECT.

Retirement of Mr. G. Northover

Mr. G. Northover, editor of the "Journal of the Royal Institute of British Architects," is retiring after twenty-eight years' service on the editorial staff of the Royal Institute. Writing in the current issue of the "Journal," the President, Mr. Paul Waterhouse, M.A. Oxon., F.S.A., says :—

"If there are members of the Institute to whom the personality of Mr. Northover is unknown, this concealment is due to Mr. Northover himself. His *work*, if sometimes unrecognized and generally unacknowledged, is known to all. During the war, in the absence on service of Mr. MacAlister, there fell upon Mr. Northover practically the entire burden of the Secretaryship in addition to his normal duties which, to express them at their minimum, comprised the whole editorial work of the 'Journal.' It will be seen, therefore, that Mr. Northover has passed a very busy life during his twenty-eight years' service of the Institute, the fullness of which has only been varied by periods of additional pressure. He should constantly be one of our best-known and most conspicuous personalities, but that a modesty which is not the least of his good qualities has always thrown a veil over his energies, so that to many among us his work has seemed almost secret in its quiet force.

"But to me, at all events, this secret has been an open one. I can well remember the day—now a rather distant day—on which our friend was introduced to me as a new element in the little household at No. 9, and from that day to this our acquaintance with one another has been one of untroubled pleasure as far as I am concerned, but on his side of frequent forbearance.

"Mr. Northover is leaving us to enjoy a rest which he has very fully earned and to spend a leisure, which I hope will be a long one, in pursuits which his abilities will enable him to appreciate. We shall say good-bye to him with the regret which always accompanies the severance of friends and with the happiness of an untarnished retrospect.

"Our friend's work has been no mere task of mechanical procedure; the Institute, I know, owes much to his sound literary judgment and to the unobtrusive exercise of a knowledge and taste which we have been ungratefully willing to take for granted. He can look back upon duties done not only honestly but adroitly.

"I am aware that as an editor he has for a multitude of years dealt over-indulgently with my own prose; and it is a kind of comfort to me to think that I have at last produced something which, if

he had his own modest way, he would undoubtedly exclude from publication in the 'Journal.'

"My readers will, I am sure, oblige me by treating these lines not as a formal statement by the President of the Institute, but as the personal proposal of a vote of thanks to which they will accord their votes with ungrudging, if silent, acclamation."

Architects and the Public

The Committee on Public Information of the Minnesota Chapter of the American Institute of Architects have drawn up the following circular for the general information of the public :—

The Selection of the Architect.

Those who have never employed an architect are apt to be at a loss regarding the method of procedure. Many do not realize that architecture is a profession, and that its practice calls for men of the highest integrity and business capacity—men who command confidence as advisers and who can properly assume the responsibility inherent in the practice of a profession.

The following is a brief outline of the more important factors of building operations :—

First :

The client must first of all assure himself of the character of the man who is to be the architect. Obtain this information as you would in selecting a lawyer or physician. Ask those for whom he has rendered service; inquire as to the class or kind of work he is most familiar with; his facilities for executing the commission in all of its details, and determine particularly the standard he has attained in his work.

Second :

The owner's desire is to secure the best service available—the most suitable plan, type of construction, and economical use of materials as is possible. These desirable elements of a building operation can only be obtained through employing, not as a luxury, but as a necessity, an expert in the correlation of the many and various portions of the work. The architect's technical experience and knowledge of every phase of the problem makes it desirable as being to the owner's best interests to select the architect before deciding on anything else connected with the project.

Third :

Designing a building is a process of development. Nothing less than a complete consideration of the whole problem—site, financing, use of building, size, etc.—can possibly produce a satisfactory result. For this reason pre-determined solutions of a problem by means that are intended only to secure attention are inimical to a client's interests.

Fourth :

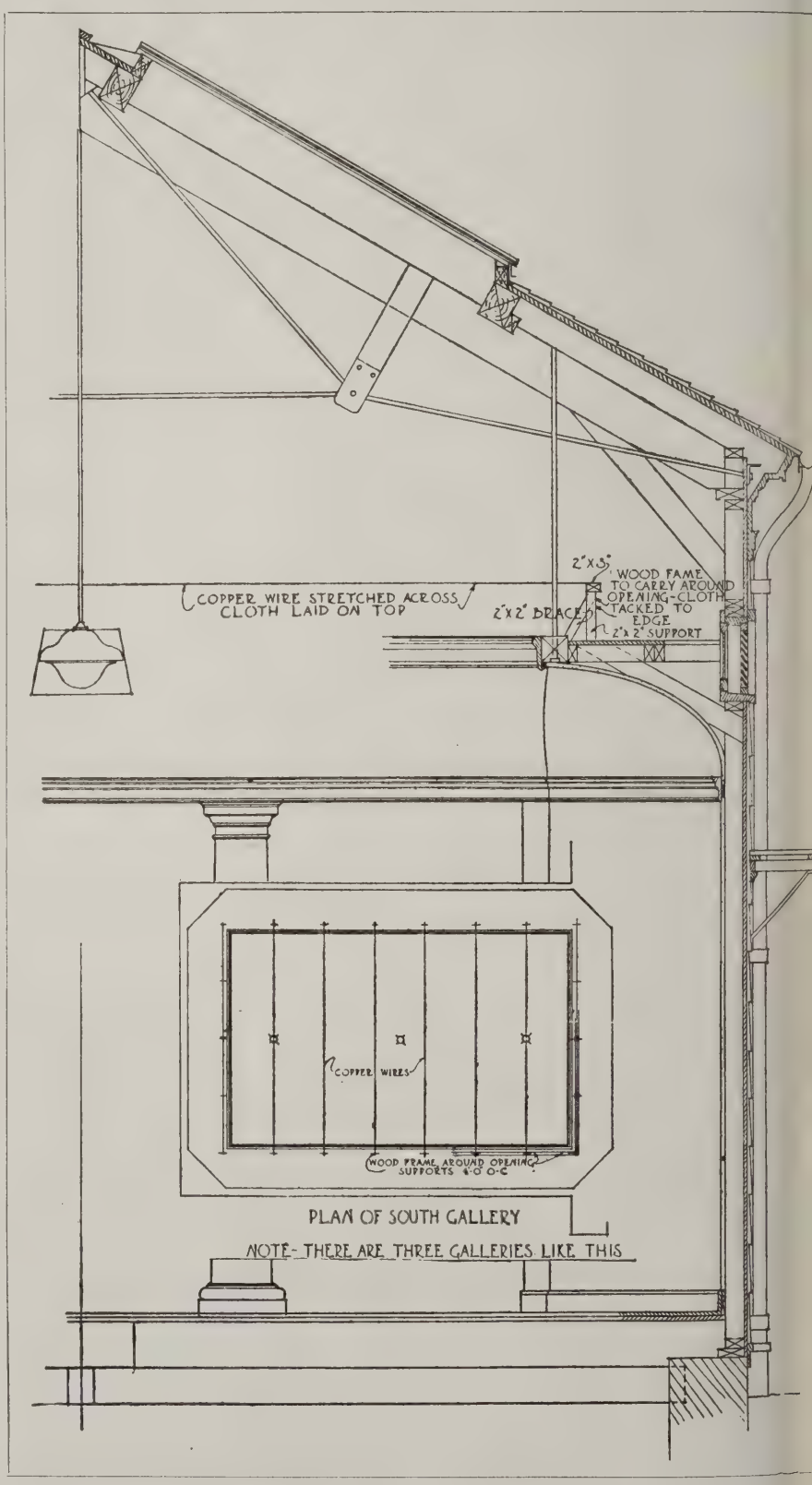
Architects, like other professional men, place varying values upon their services, and the service rendered likewise varies in merit. This should not confuse the owner—whatever is worth having is worth paying for. It is always safe to rely upon the reasonableness of the rates for minimum fees and the principles of practice as recognized by the majority of the profession.

Fifth :

Architectural competitions are usually unsuccessful owing to clients' misapprehension of the end to be attained. Too frequently it is thought to be an equable method of discovering a solution to the building problem; it should be, rather, considered as but one method by which to select an architect, and its employment is now generally restricted to large work.

Plans are not merchandise; they not kept in stock to be delivered to casual buyer. Plans are the resul conferences, detailed information rel to a great many matters of consequ much study and labour, and, there no one has a right to gratuitous wo connection with competitions.

"Architecture is the art which so poses and adorns the edifices raise man for whatsoever uses, that the sig them contributes to his mental he power, and pleasure."—*John Ruskin.*

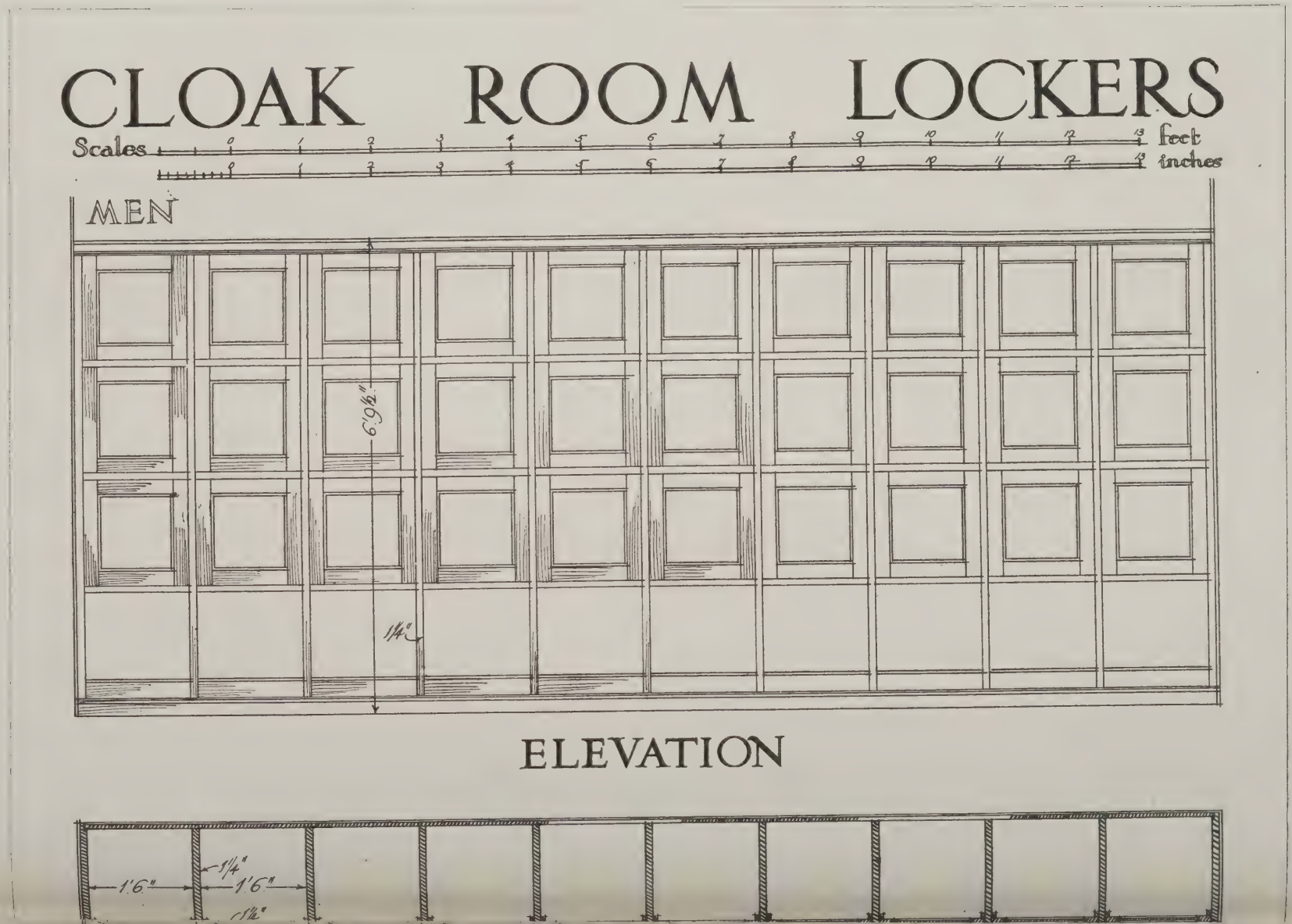


METHOD OF LIGHTING EMPLOYED IN THE ART GALLERY OF OLD LYME CONNECTICUT. CHARLES A. PLATT, ARCHITECT.

(*See preceding page.*)

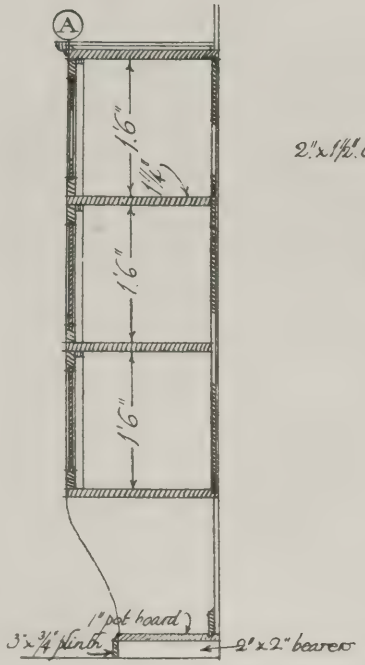
Practical Notes for Architectural Draughtsmen (Series II) Technical Schools and Science Buildings. 8.—Cloak Room Lockers

A. W. S. Cross, M.A., F.R.I.B.A., and Kenneth M. B. Cross, M.A., Architects

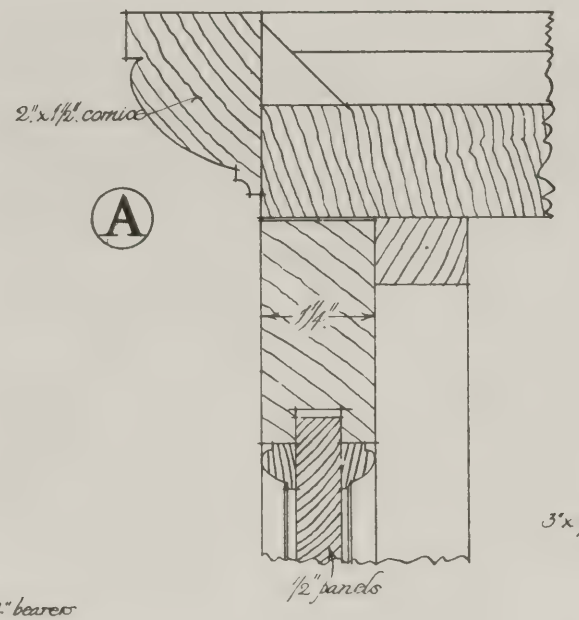


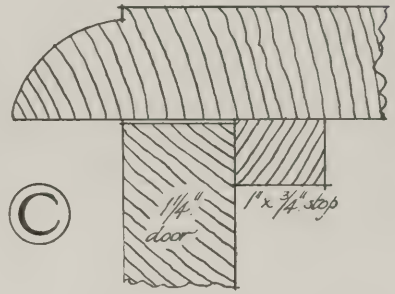


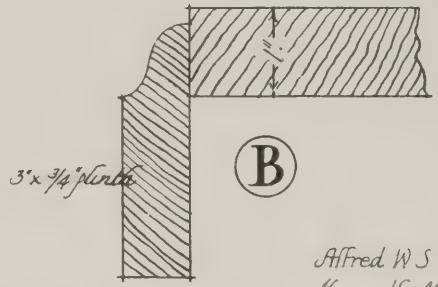
ELEVATION

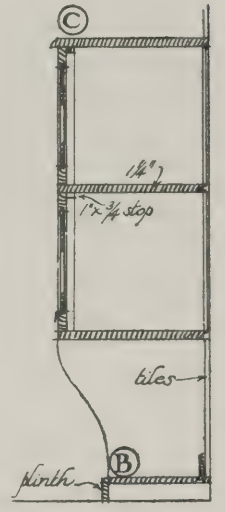


SECTION









SECTION

DETAILS

Alfred W S Cross, M.A. F.R.I.B.A.
Kenneth M.B. Cross, M.A. Architects
46 New Bond Street, London W.

In the above drawing typical cloak-room lockers are shown for a science or technical school building. Those for men are arranged in three tiers, and those for women in two. Each locker is 1 ft. 6 in. square on plan, and of the same height internally, and is fitted with hinged doors with locks.

Some further notes are given on page 422.

Correspondence

w to Restore Confidence in Building

) the Editors of THE ARCHITECTS' JOURNAL.

s,—I have read with much interest article on how to revive confidence ilding in last week's JOURNAL, to- r with Mr. Hill's letter.

e whole thing amounts to a tempo- spirit of sacrifice on the part of some- with hopes of good results in the end. results will be obvious if only that body could be found. Architects erfectly willing, I should imagine, ke any step in this direction, as they ne most affected by present condi- It should be remembered, how- that they are the least capable of ce, owing to the high cost of living o their anomalous position. They s intermediaries between client and r. The former has been badly ened, and the latter will not, or t, work at a loss; hence an impasse uitless waiting.

re are several firms of builders who conjointly or individually take the ive by reason of their capital re- s and credit.

example, supposing one large firm doubted prestige and good reputa- ook the plunge and had the courage dertake the carrying out of a con- or a series of contracts for mere cost short period, declared no dividend, n a reduced dividend, to their share- s, advertised the fact broadcast hey were prepared to work at rock- n prices, they would procure an ent response, with the result that would be a fall in prices and more with a gradual restoring of confi- It would have to be a firm willing h to withstand terrific onslaught buse, as it goes without saying that would be a rumpus, and no small

uld they break away for nothing? ecause the architect and surveyor support. These latter professions sent are powerless because of the in the building trade, which the rs and builders' manufacturers control, and because of the cost of

architect and surveyor, in the ty of instances, accept the lowest on behalf of their client. They help it if this tender is in itself y exorbitant. The client, how- does not waste time in argument; ply refuses to build, and says, "I ait. I am the man with the cash, ber."

Hill writes: "If a few architects, ors, and builders get together much ill result." Agreed in a sense, but ill would do well to remember that eliminary step lies with the builders. tep taken, the architects and sur- would obviously fall in and re- nd the new state of things to their . The clients will say, "Very gentlemen; we will reciprocate and Result, employment for every-

our would have to reconcile itself or later. A bricklayer or any tradesman prefers to be employed for a long period of guaranteed work at a reduced wage than for a short-time period at a high wage. They cannot afford to dictate terms now there is so much unemployment. If the trade unions object, it remains to be seen whether the trades adhere to their union and starve, or accept a lower wage for a long term. Men are idle to the tune of 140,000, or thereabouts, in the building trade.

No firm would, however, take the risk of breaking away unless it had very definite safeguards. I admit that there are tremendous difficulties in the way, and these Utopian suggestions are but a blind shot in the dark, and I prefer to leave details to those more competent to deal with them.

The Institute would do well on receipt of information of an attempt by any firm to restore confidence in the manner suggested to give it official support. The work is there waiting to be done. I know of one architect who has over a million pounds worth of work held up simply because the clients are waiting, and there are obviously many others in like position, to say nothing of small work.

The firm that undertakes this pioneer move will receive its recompense in the long run, because it would not result with one contract, but more than one, with the acquisition of an increased turnover, in profits the next year as a consequence of sacrifice.

To restore confidence such a pioneer step will have to be taken. There can be no question of the policy "not worth while" being allowed to continue. We are all suffering from the greatest upheaval known for centuries, and it will be either a case of momentary sacrifice or go under, as the unemployment in the professional ranks is rapidly becoming exceedingly serious, to say nothing of acute distress. The press campaign is barely indicative of what really exists. For those who hold up prices and foster bad economic conditions the best remedy is to read the 54th fable of Æsop and apply.

Lastly, Mr. Welford's article was really a permanent suggestive expedient in another direction; he certainly did not intend it to be temporary—the restoration of confidence is momentary; therefore it would not be fair to misconstrue his motives or combine the two issues.

Yours faithfully,

NIEL MARTIN KAYE, A.R.I.B.A.

Converting Old Cottages

To the Editors of THE ARCHITECTS' JOURNAL.

SIRS,—I presume that the illustration, published in your issue for September 14, of the cottages at Drinkstone, Woolpit, in their present condition, i.e. after treatment by the official architect of the Society for the Protection of Ancient Buildings, is meant to be held up as an example of the correct way to deal with old buildings. To my unprofessional eye, however, it only shows how not to repair —"repair" in this case being but "restore" writ otherwise.

To say nothing of the general air of prim and smug renovation which the cottages have now assumed, the pictures of the two states—before and after—demonstrate that the building has been disfigured rather than anything else in the "converting" process. The charming mullioned and leaded window of three lights at the left-hand of the picture has been wantonly abolished, and a commonplace window of two lights substituted for it, while four new windows in fresh situations have been introduced, breaking up the wall-surface with a number of restless, fussy apertures, entirely destructive of the broad, reposeful aspect which the building formerly presented.

If this is a specimen of the best that an enlightened society of artists and archæologists can do, one is driven to despair.

AYMER VALLANCE.

Professor Reilly on Toronto

To the Editors of THE ARCHITECTS' JOURNAL.

SIRS,—Will Professor Reilly allow me to correct one or two items in his article on Toronto, published in your issue for September 21?

As a matter of fact the journey from Toronto to Buffalo does not take two days, but about six hours. Passengers go by boat on the Niagara River from Toronto to Queenston, and the rest of the way to Buffalo by train, via Niagara Falls City and Tonawanda. Buffalo is not on Lake Ontario, as Professor Reilly states, but on Lake Erie.

During the sixteen years I lived in Toronto I did not meet anyone who had not been to Buffalo, and I cannot understand Professor Reilly's remark that the majority of the people are unaware that the journey takes two days.

His statement that the main street from Toronto, which connects many small towns, is somewhat depressing, is a very strange one in view of the fact that it is practically identical with our Watling Street between London and Coventry. Both are practically straight, and the Canadian road has an electric tram line three-quarters of the way.

ALLAN GRIFFITHS.

Ulster's Proposed Parliament Buildings

The Council of the Ulster Society of Architects have addressed the following letter to Sir James Craig, M.P., Prime Minister for Northern Ireland. Copies of the letter have also been sent to the R.I.B.A. and all Allied Societies, and the Society of Architects:—

September 24, 1921.

Rt. Hon. Sir James Craig, M.P.

SIR,—It having come to the knowledge of the Ulster Society of Architects that an application has been made by the British Treasury to the Royal Institute of British Architects for advice as to the design for the proposed Parliament Buildings for Northern Ireland, and that the Council of the Institute has advised that a select competition be promoted, limited to six well-known architects, presumably selected from the personnel of that body: The Council having the matter under consideration resolved as follows:—

> As the buildings for the Parliament of Northern Ireland are, perhaps, the most important of a national character that have been

proposed in recent years, the limitation of such a competition is highly undesirable, and not in accordance with precedent. It is held that it is essential that in a matter of such importance every architect in the United Kingdom should have an equal opportunity to compete, and that the result is more likely to obtain the best possible design.

I am, Sir,
Your obedient servant,
EDWIN R. KENNEDY, Hon. Sec.

The Stanton Chantry, St. Alban's, Holborn

This chapel, which has been completed from the designs of Mr. J. N. Comper, is enclosed on two sides by a stone altar-screen and the tomb canopy (which is shown in the illustration on this page), and on the west by an iron grille, the lower part of which is extended to protect the tomb on the north side. The bronze effigy and the equestrian group of St. Martin, together with the two alabaster groups of a Pietà and Annunciation in the altar screen, were modelled from the architect's cartoons by Mr. Alfred Drury, R.A.; the carving of all the alabaster figures, as well as the tabernacle work, was executed by Mr. W. D. Gough; and the decoration in gold and colour and the figure panels, both within and without the chantry, was done by Mr. Bernard-Smith.

The principal figures are about 5 ft. high, in single blocks of Nottinghamshire alabaster; and each bay of the pendent vaulting over the tomb is carved out of one and the same block as the very delicate traceries, in Nailsworth stone. The double-vaulted tabernacles are also cut out of single stones, and there is very skilful cutting in the alabaster of which the tomb is made. The altar itself is of black Derbyshire marble, and has lower and upper frontals of blue silk richly embroidered, and silvered candlesticks and cross inlaid with lapis and malachite, and stands under a wooden tester or canopy bearing on its soffit a relief of the Coronation of the Virgin. The aumbry door is decorated with low reliefs in bronze gilt, and the effigy was also designed for mercurial gilding; but the cost after the war, and the fact that it is not chiselled, prevented its being gilded. It is too often forgotten that the gilding of bronze effigies was a universal tradition, and that in so recent an instance as the Wellington monument it was a great disappointment to Alfred Stevens that for lack of fine chiselling he could not have it gilded.

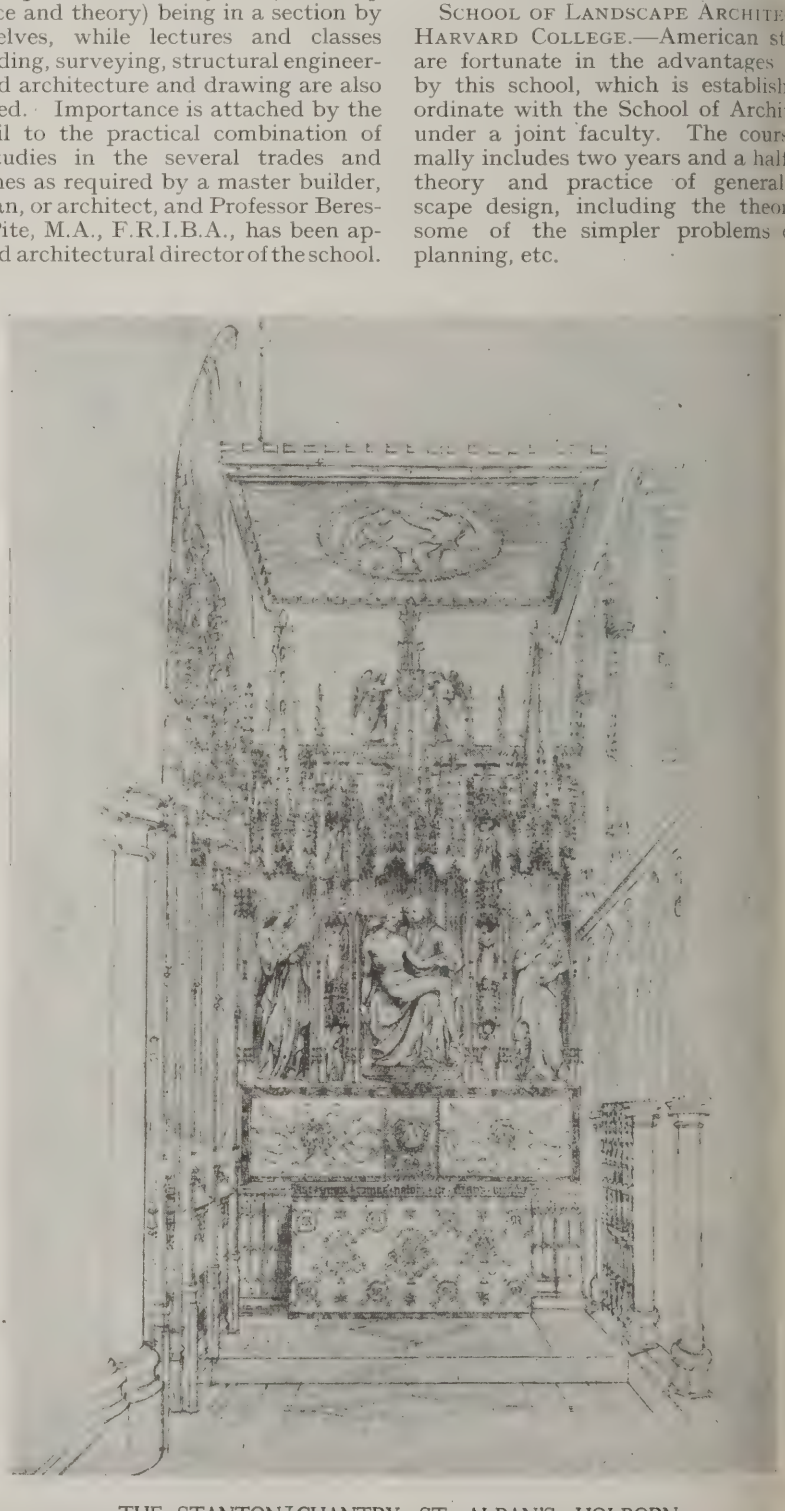
Autumn Sessions

THE BARTLETT SCHOOL OF ARCHITECTURE, UNIVERSITY COLLEGE, LONDON.—The new term began on October 3, and the syllabus outlines a full programme for the session. A large number of courses are provided, including Architectural Design, the Atelier, Town Planning, Civic Architecture and Civic Engineering. The lecturers include — Architecture: Professor A. E. Richardson, F.R.I.B.A., Messrs. Arthur Stratton, F.S.A., F.R.I.B.A., Martin Briggs, F.R.I.B.A., James Burford, A.R.I.B.A., J. D. M. Harvey, B.A., A. Stanley Furner, A.R.I.B.A., E. P. B. Musman, B.A., A.R.I.B.A.; and Town Planning: Professor S. D. Adshead, M.A., F.R.I.B.A.

LONDON COUNTY COUNCIL SCHOOL OF BUILDING.—Both day and evening classes have now recommenced at this school, which provides a very complete technical education for prospective members of the building and allied trades. The curriculum of the day technical school, for youths intending to enter the offices of builders, architects, surveyors, structural engineers, etc., is most comprehensive, and includes instruction in both theory and practice, of all branches of building and construction, architectural drawing and architectural history not being forgotten. The prospectus of the evening classes divides the work of the school into various parts, trade subjects (workshop practice and theory) being in a section by themselves, while lectures and classes in building, surveying, structural engineering and architecture and drawing are also included. Importance is attached by the Council to the practical combination of the studies in the several trades and branches as required by a master builder, foreman, or architect, and Professor Beresford Pite, M.A., F.R.I.B.A., has been appointed architectural director of the school.

LONDON COUNTY COUNCIL CEN SCHOOL OF ARTS AND CRAFTS.—We received the prospectus and time tab the newly-begun session of this sc which is designed solely for the educ of art and craft workers, and is pro with facilities for doing the most adva work. Among the departments in w instruction is given are stained glass mosaic, painted and sculptured arch tural decoration, furniture and engra and ancillary instruction is provid architecture and building crafts an drawing and painting. A course lectures on some historical aspects o by Professor Selwyn Image, has also arranged, and Sir Banister Flet will give a course of university exte lectures on the History of Medi Architecture.

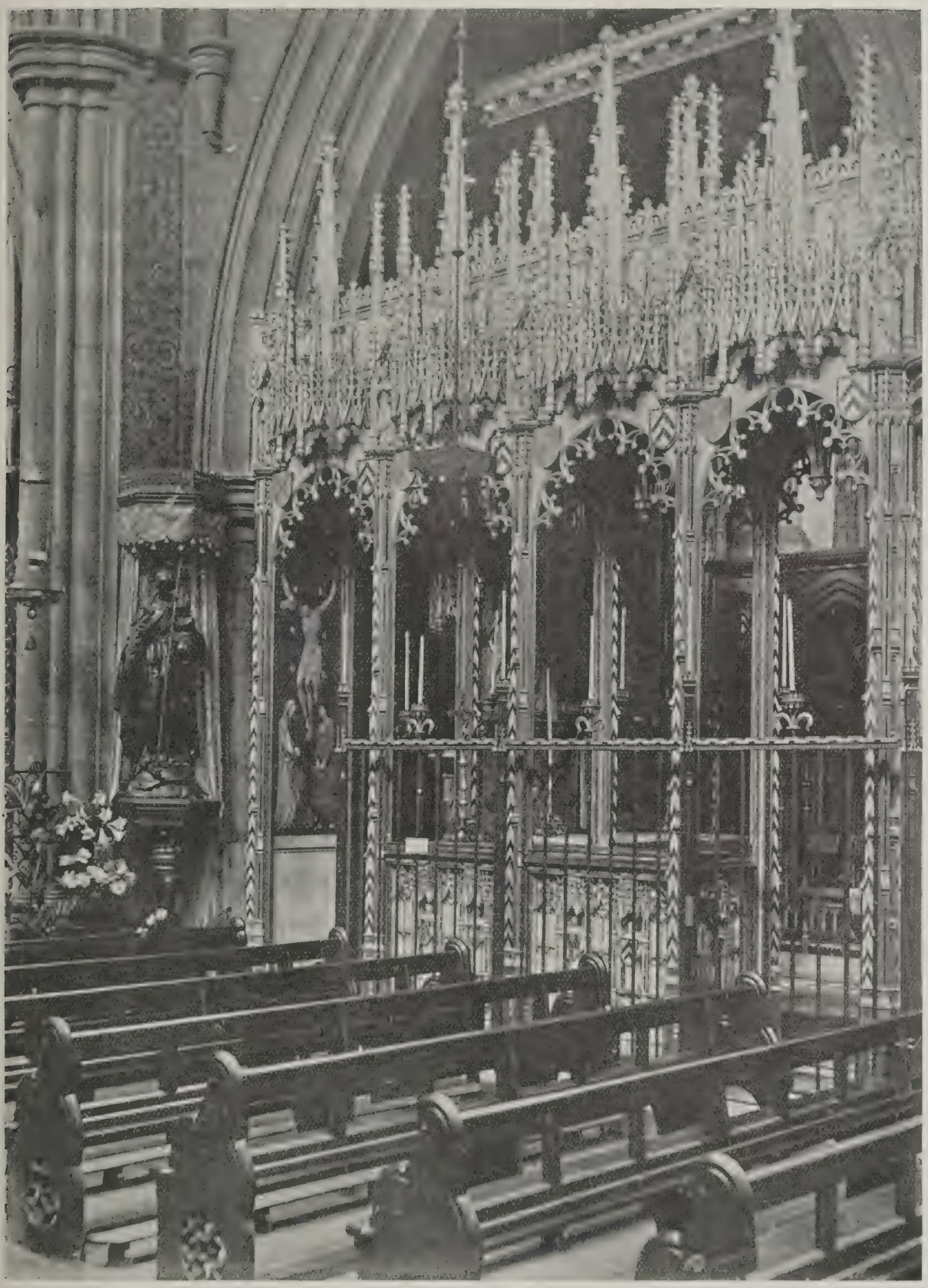
SCHOOL OF LANDSCAPE ARCHITECT HARVARD COLLEGE.—American stud are fortunate in the advantages of by this school, which is established ordinate with the School of Architec under a joint faculty. The course mally includes two years and a half o theory and practice of general l scape design, including the theory some of the simpler problems of planning, etc.



THE STANTON CHANTRY, ST. ALBAN'S, HOLBORN.
J. N. COMPER, ARCHITECT.

Modern Ecclesiastical Architecture. 14.—Detail of Altar Screen and Iron Grille in the Stanton Chantry, St. Alban's, Holborn

J. N. Comper, Architect

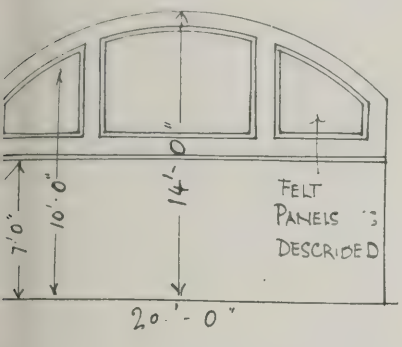


This illustration shows the Stanton Chantry in St. Alban's, Holborn, before the effigy was put in place, but a good idea of the complete work is conveyed by the reproduction of an original drawing by Mr. Comper given on the opposite page. The stonework is remarkable for its richness and delicacy of detail.

Enquiries Answered

Acoustics of a Club Room.

?.D.L. writes: "In the clubroom of olf house, much annoyance is caused the great reverberation of sound. It not merely an echo, but a general erberation, so wires and banners are remedy. The room is 30 ft. by 20 ft. 14 ft. high and, as shown by the tion below, has a curved ceiling. The r is wood-block; the walls are plas-d and are well covered below the



ure-rail by framed and glazed photos, ; the ceiling is lath and plaster. re are curtain blinds to the windows, otherwise no drapery or upholstery the room. As an experiment, cotton erial has been hung on the walls ve the picture-rail; but the improve-it was only very slight. Can you gnose the cause and suggest a remedy?"

The problem is a fairly straightforward . From the dimensions given in the ion, the volume (V) is approximately o cu. ft., wall surfaces in hard plaster in glass 1,080 sq. ft. (glazed pictures negligible as absorbents, and cotton erial is scarcely appreciable), ceiling sq. ft., and floor 600 ft. As the floor-ering is not mentioned I assume that wood-block surface is exposed. All se hard surfaces will not yield more n (by calculation from Sabine's co-ients) 47 units of absorption. It is not stated how many persons are ally occupying the room: assuming an rage of 10 persons at 6.34 per person will give another 63 units. Total, units.

pplying these figures in Sabine's nula, the resulting reverberation *t* es to slightly over three seconds. If room is used for lectures, and an rage audience of twenty could be med, this would be reduced to two nds. Assuming, however, the longer three seconds (speaking voice in-ity), it remains to introduce enough rbing material to make a permanent ction. Panels of felt 1 in. thick ed in the ⊐-shaped spaces at each of the room above the picture-rail, 50 sq. ft. at each end (total 100 sq. ft.), ld reduce the three seconds to one and e-quarter seconds. In addition great fit would be secured from some large on the floor placed, if possible, in tions where people are moving about. rever there is reverberation there is yance from footsteps, umbrella taps, r scrapes. A 100 sq. ft. of rugs or eting, in addition to the felt panels, d further reduce the reverberation lightly less than one and a half nds. A thick carpet on a felt under-mat all over the floor would suffice without the felt panels on the walls to reduce *t* to one and a half seconds.

There are other alternatives, but without more accurate information as to the exact furnishing and uses of the room it is not worth while elaborating them. The felt, if used, should be at least 1 in. thick and laid on battens, with an air-space behind. It should be sprayed with a fireproof solution and covered with a thin cloth or membrane for the sake of appearances. Care should be taken with the fixing.

Reverberation frequently occurs in small rooms where hard fireproof materials, patent plasters, etc., are used, and is the more noticeable on account of the small volume. Owing to the long wave length of average sounds (male human voice 3.5 ft.) absorbing material must be something thick and waddy to be immediately useful.

Wires are useless as absorbents owing to the fact that they absorb energy from their rigid supports at each end, and in no case from the air surrounding them; they could only therefore increase by the smallest fraction the existing absorbing power of the walls from which they were strung.

H. BAGENAL.

Preserving Old Oak Panelling, etc.

J. H. P. writes: "Please suggest a preservative to apply to old carved oak panelling. This panelling is of Elizabethan or early Jacobean date, and was once covered with many coats of paint; the paint was removed about twenty years ago by means of a strong caustic pickle, and the oak now shows some signs of incipient decay; in parts it is losing colour, a white efflorescence is noticeable, and the wood is softening. The hall itself is perfectly dry. It is imperative that the preservative shall not affect the colour of the wood, which is now generally of a beautiful dark tint."

—It may be that the oak is beginning to decay owing to the removal of the old paint, but I do not think that any great harm can have resulted from its removal. I suggest that the oak work be brushed over with linseed oil first—that may prove a sufficient remedy. If a further application is needed, nothing better than beeswax and turpentine can be used to fill the pores and preserve the woodwork.

F.S.I.

Dilapidations to Farm.

"Student Subscriber" writes: "Please inform me whether a tenant at the termination of his tenancy is liable to the landlord for the dilapidations to a farm or a field or garden which he has held for many years under a yearly tenancy without any agreement or lease in writing."

—If a tenant having an annual tenancy holds by virtue of an old lease which has expired and so left him holding as an annual tenant only, he is liable for dilapidations in accordance with the terms of the old lease—the reason being that, though his tenure has altered in point of time, it has not altered in any other way—as he took the place so he gives it up.

If there never has been a written agreement or lease of any sort, the tenant holds either under the "Agricultural Holdings Acts," or under "Custom of the Country," and in either case he is liable for dilapidations to the holding whether they be caused by action on his part or by mere neglect. The liability of an annual tenant is, however, not an onerous matter unless he has farmed badly or neglected his hedges and ditches.

F.S.I.

By-laws for Model Hospital.

"Reader" writes: "Can you inform me where I can obtain by-laws governing the erection of small model hospitals of about twenty-five beds?"

—By-laws with regard to hospitals vary according to the locality in which they are erected. Application should be made to the surveyor to the local council.

Professor Reilly on Quebec

Quebec is a piece of Europe as picturesque and full of character as anything Americans will find on the other side. I believe now they are starting to go there. Let us hope that some day their own towns may have something of the same mellowness and dignity, the same tenderness and reserve, that this quiet old French town so plentifully possesses. Much as one must admire the many extraordinary qualities of New York and Chicago, their kindest friends must admit that without some deep spiritual conversion the special quality of Quebec, apart altogether from the unique beauty of its site, is something entirely beyond them.

In what exactly this quality consists it is difficult to say. It appears to me to lie in a simple and pious attitude to life, which is shown in the dual monuments erected by the town to both Wolfe and Montcalm, and in the single monument to the brave of both armies. It is shown, too, in the homely, almost domestic, character of its cathedral, so very intimate and human in its architecture that the most hardened worldling would be tempted to confession.

Let us consider this building a little. It is on the small old market place, with the post office building on one side and the town hall on another. Laval University is behind it, and the best shops are close at hand. It is the cathedral, remember, of the capital of, perhaps, the most uniformly Catholic district in the world. You might expect, therefore, a certain display of pomp and power. Instead you have a simple and dignified Roman-arched entrance leading to an interior which combines the romance of high altars with the quietness of a Friends' meeting-house, and yet remains a cathedral. It is a church that has been added to from time to time yet never spoilt, because the hands that did it were all impressed with the same spirit. However apparently incongruous the detail they brought—Georgian balconies, Louis Seize gilding, or cut-glass chandeliers—there was a quality of simplicity, even of *naïveté* about the gift, which made it fit in with the spirit of the church.

It seemed to me on a short visit that there was much of the quality of this homely, intimate, yet spiritual building in the town itself. The streets are narrow and picturesque like those of many a

Normandy town, but with a strangely Puritanical air. There are practically no cafés or restaurants to be seen, no gay advertisements of *aperitifs*. Each house or shop seems content with itself and its own way of life, and not too anxious to attract the passer-by.

If this is what you feel as you walk the streets of this quiet but thriving old town, with its 100,000 inhabitants, with its docks, elevators, and factories, what you see from the river when you approach it is one of the most romantic sights in the world. The St. Lawrence makes a sharp bend immediately in front of the town, so that the cliff on which it stands has almost the effect of a headland. This cliff is crowned with buildings of distinctive outline, like the great C.P.R. hotel, the Chateau Frontenac, the domed post office, the upstanding block of Laval University. Below it is the lower town, a pleasing medley of roofs from among which stand out as sentinels in the foreground some great grain elevators. Docks and wharves line the actual shore, from which little ferryboats are always darting out to the town of Levis, on the opposite side of the river, and to other places.

A feature of the town as seen from the river, and especially at night when their lines are emphasized by dense rows of lamps, are the famous terraces—the wooded battery terrace half-way up the hill, and the great parade at its top in front of the Chateau. These upper lines of light seem to extend for miles, for the plateau on top of the cliffs behind the town has been laid out as a pleasure ground, with Wolfe's Cove as a place for picnics. It is in this park that the monuments to conquerors and conquered alike have been put up. A fine drive, called the Grande Allée, leads to it from the town, at the commencement of which are the Parliament Buildings, a good stone block with French Renaissance detail of no great pretensions, but, nevertheless, the best Parliament building I saw. (I ought to say I did not go to Winnipeg, where Mr. Frank Simon, late architect of Liverpool, has in his Parliament buildings there put up what is probably the best building in Canada.)

Following the Grande Allée, one passes the chief residences in the town, as well as the barracks and garrison club, before reaching the battlefield, which is a fine open sweep of grass perhaps some square mile in extent, following the cliff and intersected with drives. The blot on it, and it is a very serious one, is a red brick factory with a hideous water-tower which was erected for the manufacture of the Ross rifle. If one takes the cross-drive at right angles to the main drive parallel to the cliffs, one comes to a steep declivity, crowned by the monument, already mentioned, to the soldiers of both armies, at the foot of which spreads out before you as a surprise another view of the St. Lawrence and the roofs of the lower town, which, with the river, have curved round to this side.

To reach the water we must plunge down again into the quiet old streets, rattle under the archways of the old walls, drive through the old square with its green shutters, and the hotel with the trellis veranda, along a narrow planked road of overhanging houses, out on to the quay with its elevators, and finally to the big ship, a mere tugboat on the bosom of the S. Lawrence. In doing so we bid farewell to a city which will always remain in my dreams as a queen of romance, who was a holy saint and gracious lady, too.

[Extracts from an article in a recent issue of "The Liverpool Daily Post and Mercury."]

Details of Science and Technical Buildings

In technical schools or science buildings, as also in school-buildings generally which are for the use of both boys and girls, separate cloakroom accommodation must be provided for each sex. Cloakrooms must be placed conveniently near the pupils' entrances, and should be entered from ventilated lobbies wherever practicable. A heating system is often arranged for the drying of damp coats, and no trouble should be spared to ensure that the cloakrooms are thoroughly ventilated, and that the fumes from the damp clothes do not enter the teaching rooms. Cloakroom accommodation often comprises fixed seats, pegs, lockers, and boot racks, with lavatory installations in an adjoining room.

In the drawing reproduced, p. 414–415, the eighth of the series of drawings of science and technical buildings—which have been specially prepared for this JOURNAL by Messrs. A. W. S. and Kenneth M. B. Cross—cloakroom lockers are shown in detail. Those for men are arranged in three tiers, and those for women in two. Each locker is 1 ft. 6 in. square on plan, and of the same height internally, and is fitted with hinged doors with locks. In each example a raised board is fixed on 2 in. by 2 in. bearers and runs along the entire length of the lockers, and the wall space between this board and the lockers above is covered with glazed tiles. Details of the wood cornices and plinth are also shown.

Societies and Institutions

Hampshire Association of Architects.

The Hampshire Association of Architects, which has a membership of ninety, has held a meeting at Winchester to receive Mr. Paul Waterhouse, P.R.I.B.A.

Sir Wm. Portal, Bart., president of the Hampshire Association, occupied the chair. In welcoming Mr. Paul Waterhouse, he recalled the fact that Mr. Alfred Waterhouse built Lord Selborne's house at Blackmoor, Mr. W. H. Myers's house at Swanmore, and Steventon Manor. The last-named was formerly the old Squire's house, and the old rectory where Jane Austen wrote her famous novels. Mr. Alfred Waterhouse was responsible for the enlargement of his (Sir William's) father's house, and Mr. Paul Waterhouse was entrusted to draw up the details of the work.

Mr. Paul Waterhouse, in his reply, said his father's ideas were Gothic; his own idea was to work in the classical as well, and it was his privilege in early days to work on Sir Wm. Portal's classical house. Speaking on education Mr. Waterhouse said there was no feature of their work to-day more important. A great advance had been made under his presidency, but not at his suggestion. What had happened was that they had granted, under certain safeguards, n only exemptions from the new examin tion, but absolute exemption from t final. That meant that a great ma young men, perhaps particularly in t north of England and London, wou receive their education almost entirely schools right up to the finish; it mea that not only would they get their educ tion throughout the schools, but that th would not be examined by the Institu in the same way as before. The res would be to encourage the schools, whic in their turn, would be under the cont of the Institute, because the Institute h a veto on every one who passed out. that it would be readily appreciated th a very large network of education h been prepared, and would, he hoped, le to great things in the future. It mig make life more difficult for the you architect by making the approach to profession harder; but they must fa that, because it was one of the necessit of the times. It meant that the archit would have a greater mastery than ev before, and that architects would looked up to as men of even grea knowledge than many architects p sessed at the present time, and the wh body would be respected as specialis In conclusion Mr. Waterhouse congra lated the Hampshire Association up having Sir Wm. Portal as their preside Sir William was a layman, and the ri man. As architects they owed more th they could express to those gifted an teurs, men of distinction and positi who had taken the trouble to understa what architecture was all about.

Sir Wm. Portal, Bart., expressed thanks of those present to Mr. P Waterhouse for his address.

The South Wales Institute of Archite

The annual report of this socie which we have just received, makes teresting reading, recording as it d increased activity and new developme

Mr. Ivor P. Jones, the retiring Pr dent, refers in his survey of the work progress of the Institute to the organi tion and development of studies, n largely in the hands of Branch Committe This arrangement, he points out, wa great experiment, but the start has b very promising. The reports from Central, Western, and Eastern Branc are most encouraging, excellent lectu have been given, and the development the younger members has been taken in earnest. A large amount of local w has also been carried out by the resp tive branches, work which in past ye was left to the Council, with the inevita result that it received inadequate att tion, and failed to obtain the fair proper discussion obtainable at a bra meeting with first-hand knowledge av able.

The Western and Eastern Branc report interesting series of public tures held during the session, and l visits were arranged during the sum months.

Particulars are given of the Departm of Architecture and Civic Design at Technical College, Cardiff, which made considerable progress under guidance of its head, Mr. W. S. Purch M.A., A.R.I.B.A. The day school ope on October 4, and the first meeting of newly formed Evening Atelier takes p to-day. Mr. L. Percy Thomas

; visitor to the latter, co-operating the staff of the Department of :ecture, and criticizing the work in 'ss.

Council of the Institute for 1921–cludes the following: President, H. C. Portsmouth, F.S.Arc., of :ea; Vice-President, Mr. Percy as, O.B.E., A.R.I.B.A., of Cardiff; Treasurer, Mr. H. Teather, F.R.I.B.A., rdiff; Hon. Librarian, Mr. C. H. thorne, Lic.R.I.B.A., of Cardiff; Auditor, Mr. J. Cook Rees, O.B.E., rc., of Neath; Hon. Secretary, ror P. Jones, A.R.I.B.A., of Cardiff. ut forty members of the South Institute of Architects have paid :, under the presidency of Mr. H. C. nouth, F.S.Arc., to Ewenny Priory t. Donat's Castle. The party was cted over the Priory church and ds by Col. and Mrs. Picton-Turber-vho, in the course of an historical r, described the buildings as they red in the twelfth century, when were first erected. After lunch at erndown, the party proceeded to onat's Castle, where the members ted the magnificent grounds and ns. Following tea at Southern-Mr. W. H. Jones, of Swansea, ome historical and legendary stories t part of Glamorgan, and the presi-thanked Colonel Cecil Wilson for ging the meeting.

Trade and Craft

Industrial Lighting.

their new catalogue on "Industrial ng," the Edison Swan Electric Co., Ponders End, Middlesex, endeavour ow that a really efficient artificial ig installation, executed by illumi-; engineers who have studied closely e intricate situations of lighting, s a tremendous economy both in expenditure of money—the cost efficient installation is less than one ent. of the cost of the average nent of a factory—and in time and ower as well. Thus a good artificial equally diffused and free from glare, ncrease the efficiency, accuracy, y and quantity of a man's output of It will also bring the risk of acci-to a minimum, prevent eye strain, nsure the cheerfulness and satisfac-f the worker. Like sunlight, good al light has an inspiring effect, so fficiency in lighting does not solely e the mere mathematical fulfilment tain conditions, but has a recog-psychological and sociological impor-This catalogue is in reality a guide book to electric lighting, and vides useful information as to the nation of factories, shop-windows, ooms, etc., with some interesting graphs taken at night to display illiant and even effect obtained by liswan system.

Easiform" House Construction.

rs. John Laing and Sons, Ltd., of n Road, Carlisle, have sent us an ting illustrated booklet describing 'Easiform" system of shuttering affolding for the construction of te houses without skilled labour. asis of construction is a light but form 6 ft. by 2 ft. by 3½ in., all dard size, except the four corner of each block and closures. Briefly the method of construction is as follows: When the first row of forms is set in position they are filled with concrete and the second row placed on and secured to them and to each other by bolts or pins. It is claimed that two men can place and accurately fix a pair of forms, when all is favourable, in one minute. When the second row is filled with concrete, the first is removed and at once placed and secured on to the top of the second row thus forming the third course, which process is repeated up to roof height. Each course is 2 ft. high, and the Company point out that the work is most economically managed when the gang is such that they can complete one round of a block of houses for both shuttering and concrete in a day. The walls, 8 in. thick, are of cement concrete wet mixture with a clinker aggregate, finished on the outside with waterproofed cement render and roughcast. The firm claim that the construction gives the architect the same liberty as with brick construction; any room, door, or window can be in any position or of any size desired. The system is now being used for housing schemes at Wrexham, Hereford, and Pyle.

"Poilite."

We have received from Messrs. Bell's United Asbestos Co., Ltd., of Southwark Street, London, S.E.1., a book showing a series of designs of buildings in which "Poilite" asbestos cement flat sheeting and tiles have been used. These designs show various types of buildings. Their walls are constructed with timber framing, sheeted inside and out, and their roofs covered with "Poilite." The timber framing consists of 4 by 4 in. corner-posts and 4 by 3 in. intermediate uprights and horizontal timbers, the outside wall lining being of ¼ in. "Poilite" sheets, and the inside linings, partitions, and ceilings of $\frac{3}{16}$ in. sheets fixed with nails to timbers spaced at 24 in. centres, so that every butt joint comes on a timber. All these joints on outside walls are covered with a board, treated with creosote, to render them waterproof; while internal joints are covered by a simple wood moulding, thereby producing a panelled effect which lends itself to colour schemes. The roof timbers are lined with 1 in. boarding, which should be covered with felt, if the pitch is low or the situation exposed. Upon this are nailed "Poilite" tiles of various types, which are equally suitable for laying to any lap from 2¾ to 4 in. This method of building is suitable also for garages and outhouses.

"A House that Solves Every Problem."

This booklet, another publication of Messrs. Bell's United Asbestos Co., Ltd., sets forth the advantages of "Hurcan" slab construction for houses. These slabs are of cement-concrete faced with "Poilite." Illustrations are given of the "A," "N," and "R" types of "Hurcan" houses designed by Francis Bacon, architect. It is claimed that this form of construction saves time and labour, and that no plastering is needed. The roof is covered with "Poilite" tiles. The "A" type of "Hurcan" design is a bungalow consisting of sitting-room, four bedrooms, kitchen, and bathroom. The "N" type is built in two stories, and has three bedrooms; while the type "R" two-story house provides for hall, dining-room, and drawing-room, pantry, scullery, larder, four bedrooms and dressing-room, besides the kitchen, servants' quarters, and bathroom.

"Berger's Mercury."

The last issue of "Berger's Mercury," a brightly written and profusely illustrated little magazine, shows the great variety of uses to which the colour, paint and varnish of Messrs. Lewis Berger and Sons, may be put. Looking through the contents we find notes on decorative work executed in ecclesiastical, municipal and other public buildings, a cigarette factory, a bank, a lighthouse, the saloon car for Princess Arthur of Connaught in the Governor General's train on the South African Railways, Westminster School, shopfronts, and motor cars and boats, etc. Information of general interest is also included. "Mr. Berger," the representative figure of the company, secured first prize in the "Trades and Advertising Pageant" held at Ramsgate, and also took part in a recent carnival in N.E. London.

Latest List of New Inventions

Latest Patent Applications.

24363.—Berry, H.—Manufacture of artificial stone, cement, etc. September 13.

24498.—Gowland, J. P.—War memorials, etc. September 15.

24192.—Knapp, G. A.—Metal facing for window openings. September 12.

24582.—Swingler, E. — Roofing-tiles. September 15.

Specifications Published.

168631.—Biscoe, M. B.—Method of casting concrete.

168711.—Yamanouchi, G. — Building-blocks.

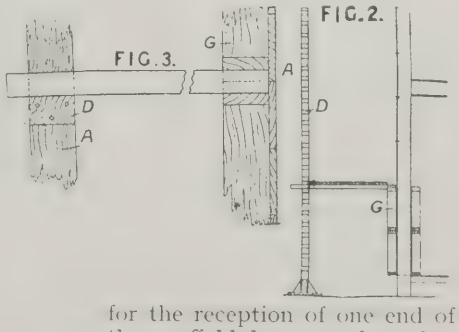
168718.—King, L.—Bricklaying.

146266.—Dittmar, E. C.—Flooring.

168774.—Vaughan, J.—Cement.

Abstract Published.

167062.—Scaffolding.—Laing, J. W.—Dalston Road, Carlisle. — In scaffolding for use in the erection of concrete walls, the uprights A are formed with spaced openings, or of two uprights with spaced blocks D between,



for the reception of one end of the scaffold bearers, the other ends of which are engaged by slots in the shutters G used for moulding the wall. The bearers may be further secured in the uprights by wedges.

The above particulars are specially prepared by Messrs. Rayner & Co., Registered Patent Agents, of 5 Chancery Lane, London, from whom readers of this Journal may obtain all information free relating to patents, trade-marks, and designs. Messrs. Rayner & Co. will obtain printed copies of the published specifications and forward on post free for the official price of 1/- each.

The Week's News

Winter Garden for Southend.

The pier pavilion is to be transformed into a winter garden at a cost of £21,000.

Housing at Wandsworth.

Wandsworth is to build 130 houses at Furzedown, Tooting, and Watney.

Housing at Epsom.

The U.D.C. have received permission from the Ministry of Health to erect 30 more houses.

More Houses for Oxford.

The corporation have received the sanction of the Ministry of Health to erect a further 58 houses.

Wallsend Building Guild.

The Building Guild have commenced the erection of 75 houses on the High Farm site for the Wallsend Town Council.

Private Building at Middlesbrough.

Fifty-five sets of plans were presented at the last meeting of the Middlesbrough Corporation Plans Committee. The plans included 61 new dwelling-houses.

Canteen Profits for a Hall.

Profits amounting to £1,500, resulting from a war-time canteen, have been devoted to a scheme for building a war-memorial hall for Harlesden.

Proposed New Rugby School.

Warwickshire County Council propose to erect a new elementary school at Rugby to serve the parishes of Rugby and Bilton.

New Theatre for New Zealand.

A new theatre is to be constructed in the centre of Auckland, New Zealand. The cost, including site, is estimated at £90,000.

Kirkcaldy War Memorial.

Architects are being invited by the Town Council of Kirkcaldy to submit plans for a war memorial, cost not to exceed £4,000.

New Lock for Nottingham.

The first sod has been cut of the New Holme Lock. This is part of an undertaking to be carried out at a cost of £190,000 by the corporation to improve the navigation of the river Trent.

Trinity College of Music.

The re-modelling of Trinity College of Music is now in progress. The improvements will provide, among other things, a new entrance hall, a grand staircase, and increased concert-room accommodation.

Wandsworth's New Park.

One of the schemes approved by the Wandsworth B.C. is for the laying-out of a thirty-one acre recreation ground on the Watney estate at Southfields, to be called Southfield Park.

Building at Greasbro'.

Sanction to negotiating a £6,500 loan for the erection of a public hall, baths, and mortuary has been given by the Health Ministry to the Greasbro' Urban District Council.

Mr. S. B. Russell.

Mr. S. B. Russell, F.R.I.B.A., is resigning his position as Chief Architect in the Housing Department of the Ministry of Health, and will resume private practice at No. 10 Gray's Inn Square, W.C.1. Chancery 7316.

Professional Practice.

Mr. A. J. Seal, architect and surveyor, has opened new offices at Hampstead House, Yelverton Road, Bournemouth. Telephone: 2861. The office at Victoria Park, Winton, will be still used for convenience of local clients. Tel. No. 2271.

South Shields Building Scheme.

At Cleadon, the corporation are erecting 325 houses. Sixty of the houses will have living room, three bedrooms, scullery and bathroom; 211—parlour, living room, three bedrooms, scullery and bathroom; and the remaining 54 parlour, living room, four bedrooms, scullery and bathroom.

Fourteenth Century Art.

Professor Dearmer is to give a course of Lantern Lectures at King's College, Strand, on Fourteenth Century Art. The lectures, which will be open to the public without ticket, will be at 5.30 on the Wednesdays in term, beginning on October 12.

Smethwick Improvements.

Smethwick Town Council have decided to apply to the Ministry of Health for sanction to loans of £70,000 for the erection of houses, and £10,000 for sewers, and to the Public Works Loan Commissioners for a further loan of £100,000 on account of housing expenditure.

St. Bartholomew-the-Great.

The history and architecture of St. Bartholomew-the-Great, West Smithfield, E.C., will be explained in the church on Saturdays, October 15 and 22, at 2.30 p.m. when the crypt and cloister will be thrown open to visitors without charge, but a collection will be made for the restoration of the remainder of the east cloister.

A Furnishing Guild.

The Furnishing Guild, which has been formed by leaders of the trade unions in the furnishing trade, is to be launched in the next few weeks. It is to be worked on the lines of the Building Guild. The Guild is to be a national one, and is expected to be able to sell its furniture at 50 per cent. less than the price asked in the shops.

Ramsgate Developments.

With the acquisition of 68 acres of land on the west cliff, Ramsgate contemplates big developments. The council intend first to construct an arterial road, which will give the town one of the finest approaches by road possessed by any resort on the coast. A new residential resort will also be created overlooking Pegwell Bay.

New Thames Workshops.

Schemes for the provision of extensive workshops and floating docks are under consideration by Messrs. Harland and Wolff, who recently took over the whole of the maintenance work of the Port of London Authority. It is estimated that about £300,000 will have to be spent on the erection of adequate workshop office accommodation is to be pr on a site near the new George V These works will be started shortly

Sale of London Streets.

Property fronting on eight mi London streets is in the market. mostly small house property in H Bethnal Green, Dalston, and Ha and covers an area of no less than 70 Known as the Middleton estate, offered first to the lessees, tenant occupiers, who have an opportun securing the freehold of their ho before it comes under the hammer. eight miles of frontages are occupi 1,500 houses.

Housing Progress in Scotland.

The following figures show the pr in State-aided housing schemes in land up to September 15, 1921: p nent houses completed, 2,683; temp houses completed, 604; reconstr houses, 67; houses built under the p subsidy schemes, 854. Total, There are, in addition, 13,774 under construction, of which 2,02 being built by private persons wit aid of the Government subsidy. total amount paid out by the Sc Board of Health in respect of th houses completed under the privat sidy schemes is £206,853 6s. 8d.

The R.I.B.A. Common Room.

The need of further office accomm tion has rendered necessary certain a tions in the Institute premises whic now being carried out. The council on the ground floor is being done with, and the space utilized for enla the clerks' office, and providing a each for the secretary and ass secretary. The Council will hold meetings for the future in the co room, and as the room will have closed to members on meeting day front room on the second floor has made available, and members are in to use it on these occasions for smoking, writing, etc.

Department of Fine Arts for Dubl

A Department of Fine Arts has established in Dublin, under the dire of Count Plunkett, T.D., H.A.R.I. who is arranging for an exhibitio works of art illustrative of Irish g This exhibition he proposes to hold in Dublin and then in Paris early i coming year. Count Plunkett i *ex-officio* member of the Royal Academy, of which he was formerly president. He was also president o National Museum, and a memb several art academies in Italy, incl those of San Luca and Virtuosi al theon in Rome. He wrote a book o style and work of Botticelli, the I artist.

Competitions Open

For list of competitions open—" Mail" Labour-Saving House, Auc War Memorial, Birmingham Ha Memory, Cinema at Bury, and Harr War Memorial—see last week's page 391.

nesday, October 12, 1921. Vol. LIV. No. 1397

THE ARCHITECTS' JOURNAL & Architectural Engineer

With which is incorporated "The Builders' Journal"



A FOUNTAIN AT STAMBOUL

27-29 Tothill Street, Westminster, S.W.1.

Current Architecture. 115.—Manchester Royal Exchange Extension : The Central Colonnade

Bradshaw Gass and Hope, FF.R.I.B.A., Architects



Photo : Stewart Bale

The Central Colonnade of the Manchester Royal Exchange is on the transverse axis of the building, dividing it into two rectangular compartments of great size. Its massive piers, grouped columns, and coffered arches recall the power and magnificence of Imperial Roman building.

THE
ARCHITECTS' JOURNAL
27-29 Tothill Street, Westminster, S.W.1.

nesday, October 12, 1921 Volume LIV. No. 1397

Notes and Comments

The Remedy for Slackness

ANYONE who can suggest a means of mitigating the horrors of unemployment is a benefactor to the community. Mr. Ernest Newton, R.A., qualifies for that distinction by a very timely and no less ble letter in "The Times" of September 30. There is gh work, he declares, to keep the building industry active for many years, if only the builder's client had ourage and enterprise to make the plunge, and if only uld feel assured that he would get a fair return on utlay. "Plans are all ready, and work could begin rrow if prices were lower." Staff, plant, and ma- ry are ready to go full speed ahead as soon as the can be assured that he will get fair value for his y. That assurance would be forthcoming if there evidence that every man was determined "to put his into his job." In other words, we have to win back ublic confidence in building. The operatives must be nted to accept reasonable wages and to yield a fair n for them. These facts Mr. Newton does not claim ve discovered. They are patent to everybody; but re-statement with such unquestionable authority d greatly impress those whose inaction is responsible he present most deplorable and most unnecessary up; an inaction that is disastrous, not only to the ing industry, but to the industries that cannot flourish ut its aid. Courage and confidence are the great of the situation—courage to set the wheels in motion, confidence in the men who tend them. An important ndum to Mr. Newton's letter refers to the reluctance und landlords to grant building leases at ground rents, permit the conversion into flats of large houses that ch would let readily, but that as big unconverted s are standing empty. With houses so scarce and ployment so rife, these shortsighted ground landlords nflicting a serious injury on the community. Mr. on's letter on unemployment is peculiarly valuable se it is essentially practical. It says very little about disease—and that little strictly to the point—but ates a specific remedy that goes to the root of the le.

Government Brick Charges

mmersmith Council Housing Committee declines to bricks through the Ministry of Health. It is, no , a great honour to get them through this channel, the privilege seems expensive. Alleging that the try charges for its bricks ten shillings a thousand in s of the market price, the Council offered the Ministry ption of selling at market prices or of losing the order. Ministry took four days to think about it, and then d to the effect that "the commitments of the Govern- for bricks must be considered before purchases in pen market," and there was appended a vague, non- nittal statement that "any financial arrangements sary would be facilitated in the final settlement of accounts." Local authorities, however, are just now in a state of rebellion, and are by no means disposed to tame acceptance of a Departmental ruling that is manifestly unjust. The Department were therefore informed that Hammersmith was determined to buy its bricks at the market price, and refused to let the question of cost stand over until the "final settlement" of accounts. How long, and in what further exasperating forms, is the building industry to suffer in order that "Government commitments" may be worked off? The Hammersmith case is a flagrant instance of the evils of Government control. We know that in time of panic the Government made desperately bad bargains; but that is no good reason why the burden should be calmly transferred to the local authority. Government have been very loudly insistent that the cost of housing has gone up sky-high through the alleged machinations of "contractors' rings"; but the Hammersmith case is conclusive in its indication of the actual culprits, who have been caught in the very act of charging ten shillings a thousand more than the market price for bricks!—have been detected *flagrante delicto* in bumping-up the housing costs of which they so bitterly and persistently complained! It is a comedy that provokes ironic laughter.

Another National Housing Scheme?

If there is any serious intention behind the Prime Minister's hints of a housing scheme of "garden city" character (and it would seem that the idea had been snowed under by unemployment problems), it is to be sincerely hoped that the new policy will be something very different from the old. For that disastrous national housing adventure has completely shattered what there was of public confidence in the Government's competence to handle such matters administratively. The State must really abstain from doing anything further to demoralize and perplex the building industry, and to raise and to dash false hopes in the general community. Intense disappointment has been the net effect of the unspeakably clumsy handling of the former scheme, and it is inconceivable that any Government could be so foolishly moth-like as to flutter around the same candle again. An adequate supply of houses of the "garden city" type would be unquestionably a boon to a large and very meritorious class of persons (if one can call it a class), and the extensive erection of such houses would provide useful work for the unemployed; but the State, having demonstrated only too clearly that it cannot be trusted with the direction and control of building operations, must be plainly told that it will be wise for them to hold off as far as they can from the fascinating but fatal candle. Let them subsidize the local authorities if that be found absolutely necessary; but let neither the State nor the municipalities interfere with the details of architecture and building, for these are matters that they do not understand, and with which they should not meddle.

The British Empire Exhibition

It was mainly for the expansion of trade that the Great Exhibition of 1851 was inaugurated. A later exhibition—that of 1862—had the further object of reviving the confidence that had been severely shaken, first by the Crimean and then by the Italian war, and hence of re-establishing on a firm basis the arts of peace, and incidentally of relieving the terrible distress from unemployment consequent on their dislocation and suspension. The British Empire Exhibition will not be less successful in promoting these objects. It will promote others. Athletics, frigidly frowned down in the 'fifties, are now integral with national life—not only our life, but that of our Allies—and parts of the site of 120 acres at Wembley Park, of which the clearance will give work to thousands of the unemployed, will be laid out as a sports ground, and there is to be a football field to hold 125,000 spectators, and to be the scene of the final Cup ties. A main contract estimated to cost a million and a half sterling sets the industry agog to see who will get it. Of course much building will have to be done, and the general scheme is very safe in the hands of Messrs. Simpson and Ayrton. There is no doubt that the British Empire Exhibition, in which the Prince of Wales is keenly and actively interested, will prodigiously promote art and science: to have its due effect on the expansion of trade, it should signalize a resumption of the penny post.

The Rennie Centenary

The 4th of October was the centenary of the death of John Rennie. He built Waterloo Bridge, and thereby popularized Aberdeen granite. He constructed the famous breakwater at Plymouth, and the work was on his hands some thirty years—as long a period as was spent on St. Paul's by Sir Christopher Wren—a coincidence that may have secured the burial of Rennie by the side of Wren in the great cathedral. So skilful were they both on lines that for a short distance ran parallel, that it seems likely that either could have done the other's work, if the opportunities had been identical; for in Wren there was so much engineering ability that he might have rivalled the fame of Rennie as a builder of bridges; but whether the designer of Waterloo Bridge—which Canova was the first to call, in public, "the noblest bridge in the world"—could have designed St. Paul's Cathedral, is a much more speculative inquiry. In answering it, engineers would be as positive with their "yes" as architects would be with their "no." Let it suffice that both were immortal builders.

"Popularizing" Architectural Information

Humour and information are not necessarily antagonistic. They have been rather ingeniously blended in an article in "The Stockport Express." Its subject is "Architecture in Stockport," and its writer moralizes on the results of a peripatetic enquiry or inquisition he made into the knowledge of architecture possessed by the "man in the street" at Stockport, and, incidentally, by a few women. His test question was: "Is St. Thomas's Church Doric, the same as the Infirmary?" He tried it on a police-constable, a tram-guard, an allotment holder, four elderly men who sat in the sun, a clergyman, a tobacconist, a lady clerk, a cobbler, and a housewife—twelve persons in all. The policeman said the Infirmary would be found straight ahead; the clergyman described it as a very plain flat building; the four elderly men said that the required information might be forthcoming at the corner house, where lived a building contractor; what the others replied is unreported, save in the instances of the allotment holder and the housewife. The former could not say whether St. George's was Gothic or Doric. The latter said "it was a daft question—nobody knew, and nobody wanted to know what sort of a building the Infirmary was: and that settled it." Not permanently, we hope, but certainly only too typically. The gentleman who conducted the inquiry bases on it a light and playful presentation of the a tectural facts that he vainly tried to elicit from his d of promiscuous examinees. He does it in an intere way; and incidentally he remarks: "I would like t how architecture presents the very heart and life community, but that can stand over for the pres If it be really possible to awaken public interest in a tecture, it is on some such lines as those adopted b writer of the article on "Architecture in Stockport" a subject can only be popularized by the use of a "popu style. Yet the style must convey no suspicion of "wri down" to ignorance; and the tone should convey th pression that the writer is less eager to impart inform than to share a joy.

Building Research Board

"Scientific research" is of intimate concern to those build. In the "Report of the Committee of the Council for Scientific and Industrial Research," ther a few pages that relate to investigations by the Bui (Materials and Construction) Research Board. work of this Board has been hindered, ironically en by the difficulty of finding suitable accommodation fo experimental station, the necessary buildings not h been completed until July of the present year; but research workers were previously accommodated a L.C.C. School of Building at Brixton. In the cir stances, the Board could not be expected to have mu report; yet four special reports—namely: (1) on sand and other concrete bricks; (2) on experiments on fl (3) experiments on the stability of thin walls; an experiments in the transmission of heat and gases thr wall materials, and the condensation of moisture on faces—have been issued, or have been placed in the h of the printer; and among reports promised is one o experimental cottages at Amesbury. Research work as this—that is, relating specifically to the industries arrived very late in the nation's history; but it is a m to which every industry should give the fullest po support and encouragement.

A Destructive "Creeper"

Sir Hamo Thornycroft, R.A., has taken part in a r useful correspondence on "Creepers" that has follow article on the subject in "The Times." Sir Hamo a that great damage has been done to the venerable wa certain Oxford colleges by the growth over them fo a century of the *Ampelopsis Veitchii*—"irreparable da for so firmly does it attach itself to the stonework tha attempt to remove it pulls off also the surface of th Oxfordshire stone, which then crumbles away rapidly all architectural features vanish." He adds that there are buildings in Oxford where this creeper mig permitted, "perhaps with advantage," yet "to allow continue to destroy the old Gothic college architect nothing less than an act of vandalism." A memb Exeter College, Oxford, sends thence a reassuring "Having," he writes, "with my own hands severe roots of the ivy on the Bodleian buttresses in our g about a year ago, and having subsequently assisted i removal of the branches, I can assure you that Christopher Wren were to look out of the windows he now be able to see his buttresses and to hope that kind hand would cover up what is, perhaps, the only jerry-building he ever executed." That illuminates to what Sir Hamo means by his otherwise occult refe to buildings where an overgrowth of ampelopsis wou an advantage—whether as a curtain or as a destru agency is a question on which Sir Hamo should n pressed for an answer. In these pages it has been al held that to cover up a venerable wall with a creep almost as deadly an insult to good architecture as it w be to good statuary.

The Fire at the Magasins du Printemps

By H. BARTLE COX, A.R.I.B.A. (of Paris)

THE new extension of the "Grands Magasins du Printemps," which has just been gutted by fire, was designed by a "Grand Prix de Rome," Monsieur René Binet. His composition was a chef-d'œuvre of commercial architecture. The masterly handling of the scheme, artistically displaying the goods and expressing the business gaiety of the firm, has contributed in a large measure to the universal renown of the "Printemps." Americans have often been heard to say: "We have bigger, but not finer premises."

If the architectural scheme was a dangerous one from the point of view of fire, it was nevertheless a paying one, as the store, with its decorative staircases, fine glass cupolas, and busy-looking open lift-wells, was immensely attractive to women. The cause of the disaster possibly being due to a fault of electric installation, it is highly probable that the premises will be restored to their pristine beauty without material alterations in the general disposition.

The day before the fire the writer of this article was, curiously enough, conducting an English architectural student over the store, and both came to the conclusion that in the event of fire the flames would probably spread very rapidly owing to draughts, and that certain unprotected girders might easily give way under the influence of great heat. The next day one of the biggest fires ever known in Paris annihilated the interior of these very premises.

From a business point of view, taking into consideration the trade brought to the firm by the attractiveness of the building, the advertisement of the fire, the indemnities of the insurance companies, it remains yet to be seen if the shareholders are worse off than those of other concerns where the question of fire alone is their sole anxiety.

According to the newspapers the value of the stock consumed is variously estimated at from 35 to 40 million francs, and the building, not quite finished, was last year reckoned to be worth 23 million. Total damage, roughly, 60 million francs.

The conflagration, which was immense, broke out on Wednesday, September 28, about 7.30 in the morning, and by half past nine the whole block of buildings comprised within the Rues de Provence, Charras, Caumartin, and the Boulevard Haussmann, became an enormous furnace. The building was seven stories high, with a large central octagon offering splendid views of the various departments on different floors, but acting as a vast well. According to some accounts the fire originated on the fifth floor, in the "Salon de Thé"; according to others it took place in the lifts. Whatever was the origin, the entire structure was soon ablaze, and became so full of smoke that even the firemen could not penetrate into the dangerous area. The clouds of smoke were so dense and voluminous that the whole of Paris was affected, and thick crowds rushed to see the catastrophe.

The "Préfet de Police" soon established an efficient "Service d'ordre," composed of the 105th Infantry corps, of armed seamen, of municipal guards, and of policemen, who evacuated the streets surrounding the affected area. Traffic in the neighbourhood was necessarily held up for several hours. The firemen, equipped with the most up-to-date appliances, now directed their attention to saving the old shop, "Le Premier Printemps," which communicated with the new by a tunnel under the Rue Caumartin. After lowering the iron shutters they filled the passage with sacks of cement which hardened under the action of the water from their hoses.

By 2.30 in the afternoon the fire was mastered and the old buildings were saved, but not without the complete internal destruction of the fine new premises and their luxurious contents. Nearly all the plate-glass windows about $\frac{3}{4}$ in. thick, had to be broken. The exterior walls



Photo: Topical

THE MAGASINS DU PRINTEMPS, PARIS, WITH THE FIRE BRIGADE IN ACTION

however, to all appearances are intact; all the account books have been preserved, and from Friday, September 30, business was carried on as usual in the old building.

This sinister affair offered a spectacle of some grandeur. More than thirty hoses of the biggest calibre were, with fine organization, directed for the most part on the roof of the premises by firemen perched upon a new form of ladder often rising to a height of nearly 100 ft., and fixed on a car with an improved form of turntable. The maximum of water pressure was obtained by instruments known as "Surpresseurs."

To-day, instead of ladies' garments, the windows display a show of fallen girders and débris. Fortunately there were no great casualties, two firemen only being slightly injured, though it is feared that the keeper of the palms and plants has perished in the flames.

On Thursday morning, September 29, an English commission arrived composed of the Chief of the London Fire Brigade, Mr. Dayer, and the Chief Inspector. They were accompanied by a Paris delegation, and came to study on the site the methods adopted by the French, especially the high ladders and the "Surpresseurs."

The public prosecutor has opened an inquiry, and three experts: M. Kling, Directeur du Laboratoire Municipal; M. Bertone, Architecte de l'Institut; M. Tétrel, Inspecteur des services électriques au chemin de fer d'Orléans, have been designated to make a report as to the cause of the disaster. Another commission of inquiry, composed of technical advisors, will be presided over by Monsieur Leullier, Préfet de Police.

The press and the public are full of theories, one being as good or as bad as the other. At present it is vaguely thought that the fire was caused by a short-circuit. Monsieur Emile Bertone (Grand Prix, 1892), expert advisor to the civil court of the department of the Seine, granted a very friendly interview to the author of this account (October 1), and says that at present no one is yet in a position to state the exact cause of the fire or to draw conclusions from the results. The fire is not yet completely extinguished, portions of floors, etc., are constantly falling, and the site still being dangerous even for experts, it will be some days before any reliable information can be obtained. Popular reports have been circulated that the reinforced concrete gave way more easily than the unprotected.



Photo: Topical.

FIRE-FIGHTING METHODS OF THE PARIS FIRE BRIGADE.

iron, but all this must be verified and the composition of the reinforced concrete examined before making deductions.

Les Nouveaux magasins du Printemps were begun about ten or twelve years ago, and were still in a state of incompletion when the fire broke out. Much of the shop fitting was carried out by Sage's, of Gray's Inn Road. The architect of the decorative part, Monsieur Binet, is dead, and Monsieur Wygo is now the architect to the firm.

Forty years ago (1881) the Printemps suffered a similar fate, and the fire was then attributed to an escape of gas. It is in consequence thought that the desire for strong lighting is at the bottom of the two disasters. Be that as it may, the most practical lesson will be learnt from studying the modifications the management decide upon when ordering the restoration.

Monsieur Bertone having kindly offered to supply more information later on, there should then be useful material for a reliable article of a more technical nature.

116.—The Scenery of "Quality Street" at the Haymarket

Designed by Sir Edwin L. Lutyens, R.A., F.R.I.B.A.



Sir Edwin Lutyens has provided a charming setting to Sir J. M. Barrie's delightful play, "Quality Street," which is now being performed at the Haymarket. Some critical comment upon the scenery is given on page 433.

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Stage Scenery and the Architect

WITH regard to the design of stage scenery, stage managers have been heard to say that architects are more trouble than they are worth, because they do not possess the stage-craft essary to get the effect they are aiming for across the lights. With batteries of lights above, below, and on h side of the stage, the question of shadows and light ies is obviously one of extreme difficulty, calling for a d deal of expert manipulation; but all who have lied modern scene design will agree that, so far as the esentation of buildings or interiors is concerned, an itect without stage-craft is infinitely preferable to the ge-craftsman without a knowledge of architecture. If one gets little effect beyond a general feeling for unity proportion, the other commits appalling blunders ch his knowledge of stage requirements simply accentes. The sane course lies in getting the architect to gn, and the scenic expert—who is naturally as important is own sphere as the architect in his—to advise.

. visit to the Haymarket Theatre, where Sir J. M. rie's "Quality Street" is now being performed, provides with an opportunity of studying the delicious and cal and completely satisfactory effect an architect has ained simply because he is an expert.

he first thing one notices is that the character of the room uch earlier than the date of the play. The bold archi-es round the doors, the mantelpiece and overmantel lelled in vigorous, assured lines, the windows with r frames and thick sash-bars the other side of the et, are reminiscent of Wren rather than of the late rgian period. To be perfectly honest, they are not n highly reminiscent of Wren; they are much more iniscent of Sir Edwin Lutyens; and though pedanti-y that is a mistake, the spirit in which it was done is oubtedly right. In 1815 to live in a Queen Anne house a perfectly logical thing to do, and a sort of poet's nce justifies the designer, especially if he is a famous artist like Sir Edwin Lutyens, in modifying his architectural grammar according to the inclinations of his temperament as well as to the conditions governing his design. Thus the three-light bay window has no historical authority, but is justified by the requirements of the stage, while the extremely modern chimneypiece has no justification whatever except that it is intrinsically and innately beautiful. How far such licence can be permitted is a matter of taste. Everyone knows those prints in which Edward the Confessor or some such celebrity is depicted holding his court amid the splendours of a Renaissance Palace; but it seems evident that in no vigorous and healthy age do either architects or any other artists allow themselves to imitate slavishly the mannerisms of a day that is dead. Sir Edwin's scenery is therefore no mere archæological resurrection; it is, as all work undertaken by an artist should be, a constructive achievement hot from the mind, a manifestation of creative intellectual energy.

The details of the composition are worth considering. The centre is indicated by settee, parrot stand, and chandelier (and by the sash-bar of the window, which is rather irritating); the chimneypiece strongly emphasized as a focal point, but balanced on the other side of the window by the Chippendale cabinet and the heavy door with that wonderful architrave that rescues the wall from monotony. Then the light decorative Sheraton furniture, which is by Spillman, recovers a certain interest for the space in the centre which would otherwise be dull, though the window has more the feeling of a link between the primary mass on the right and the secondary mass on the left, than the appearance of a third mass, as which it would be too dominating. It is only necessary to imagine Leon Quatermaine standing tall and stately in the window of this room in his rich clothes (as handsome at that date as the women's clothes were ugly), and Fay Compton or some other delightful person sitting by the fire, and the picture is complete.



Photo; Foulsham and Banfield

PERIOD ARCHITECTURE, COSTUME, AND FURNITURE IN "QUALITY STREET," AT THE HAYMARKET

Manchester Royal Exchange Extension

A Description of the New Work

ON Saturday last the great new extension of the Manchester Royal Exchange, which has just been completed from the designs of Messsrs. Bradshaw Gass and Hope, FF.R.I.B.A., was officially opened by his Majesty the King, who was accompanied by the Queen and Princess Mary. The building, which has been practically doubled in size, has been in the builders' hands since the beginning of the war, which seriously retarded progress. The extension has probably involved an outlay considerably exceeding £1,000,000.

Before coming to a description of the new work a few facts may be related about earlier Manchester Exchanges. The first, which was erected in 1729 in the reign of George II, was taken down in 1790. Greater convenience became a necessity. A room was hired, but the growing importance of the trade and manufacture required something better. At a meeting held on October 8, 1804, it was resolved to erect a handsome building. Those who attended the meeting would have been astounded to know that on the same date, after a lapse of 117 years, a building, twenty times the size, would be opened. The building just mentioned was opened for business on January 1, 1809, about the time Napoleon was at the height of his power.

About 1830, complaints of the inadequate space for subscribers of the Exchange suggest that the cotton trade was growing. A building was then er which may be described as a direct a tor of the present one, as it occup portion of the site. Lancashire c trade, increasing by leaps and bo soon found this new building too s and it had to be twice extended 1851, after a visit to Manchester by Victoria, when the Exchange was as a reception-room by the civic au ties, the "Exchange" became a "R Exchange."

In the early 'sixties there were 5,500 members, and the Royal Exch was again found to be inconveni crowded. What was then consider vast scheme was taken in hand. A of 6,000 square yards was acquired



Photo : Stewart Bale.

THE ROYAL EXCHANGE, MANCHESTER: ELEVATION TO EXCHANGE STREET AND ST. ANN'S SQUARE.
BRADSHAW GASS AND HOPE, FF.R.I.B.A., ARCHITECTS.

Current Architecture. 117.—Manchester Royal Exchange Extension: Detail of Principal Entrance

Bradshaw Gass and Hope, FF.R.I.B.A., Architects



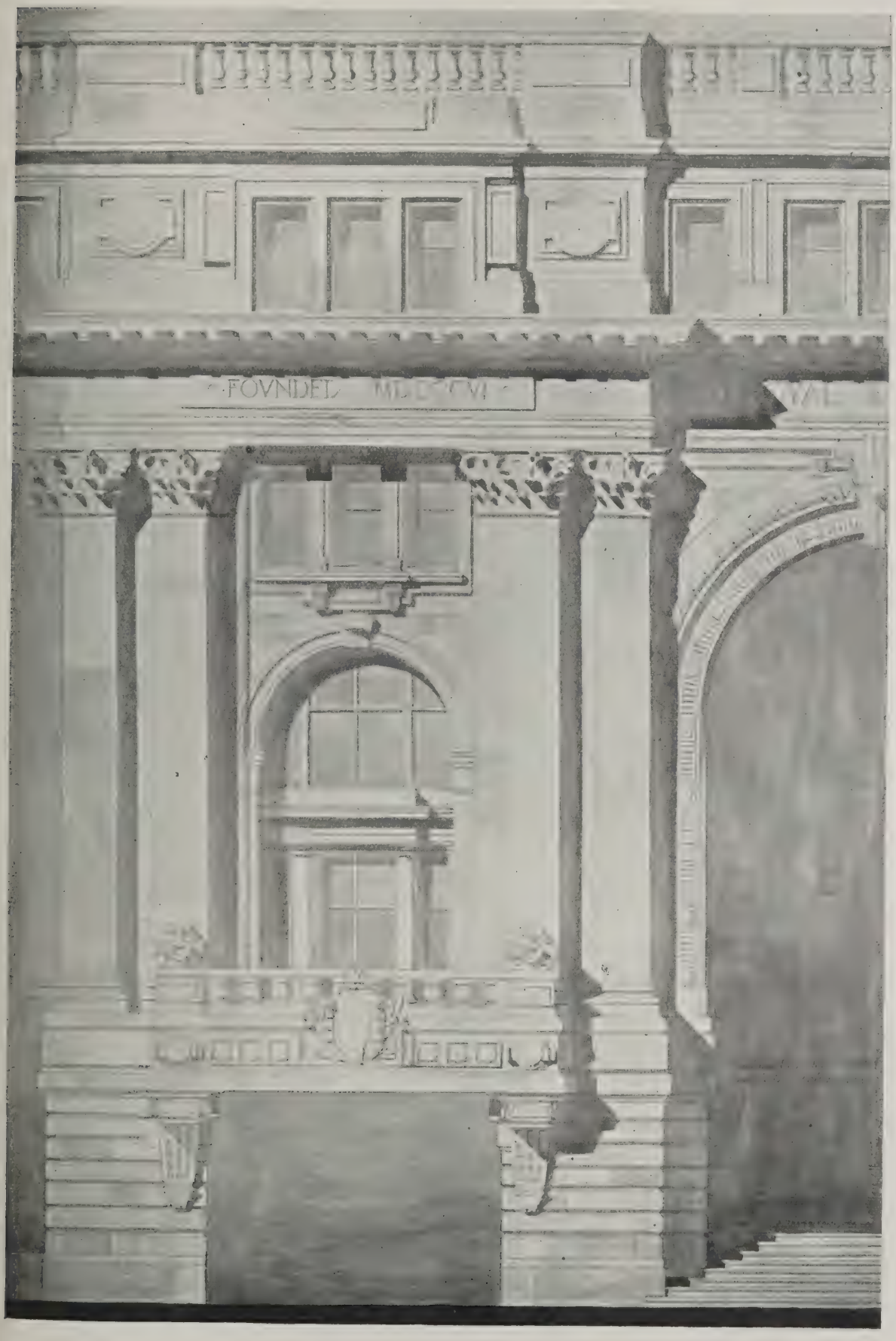
Photo: Stewart Bale.

The principal entrance to the reconstructed and extended Manchester Royal Exchange takes the form of a great arched opening, four stories in height, and flanked on either side by bays of distinctive character. Immense in scale and dignified in architectural treatment, it is thoroughly in keeping with the great size of the building and the important functions which it is designed to fulfil.

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Current Architecture. 118.—Manchester Royal Exchange Extension : Detail of Elevation to Exchange Street

Bradshaw Gass and Hope, FF.R.I.B.A. Architects



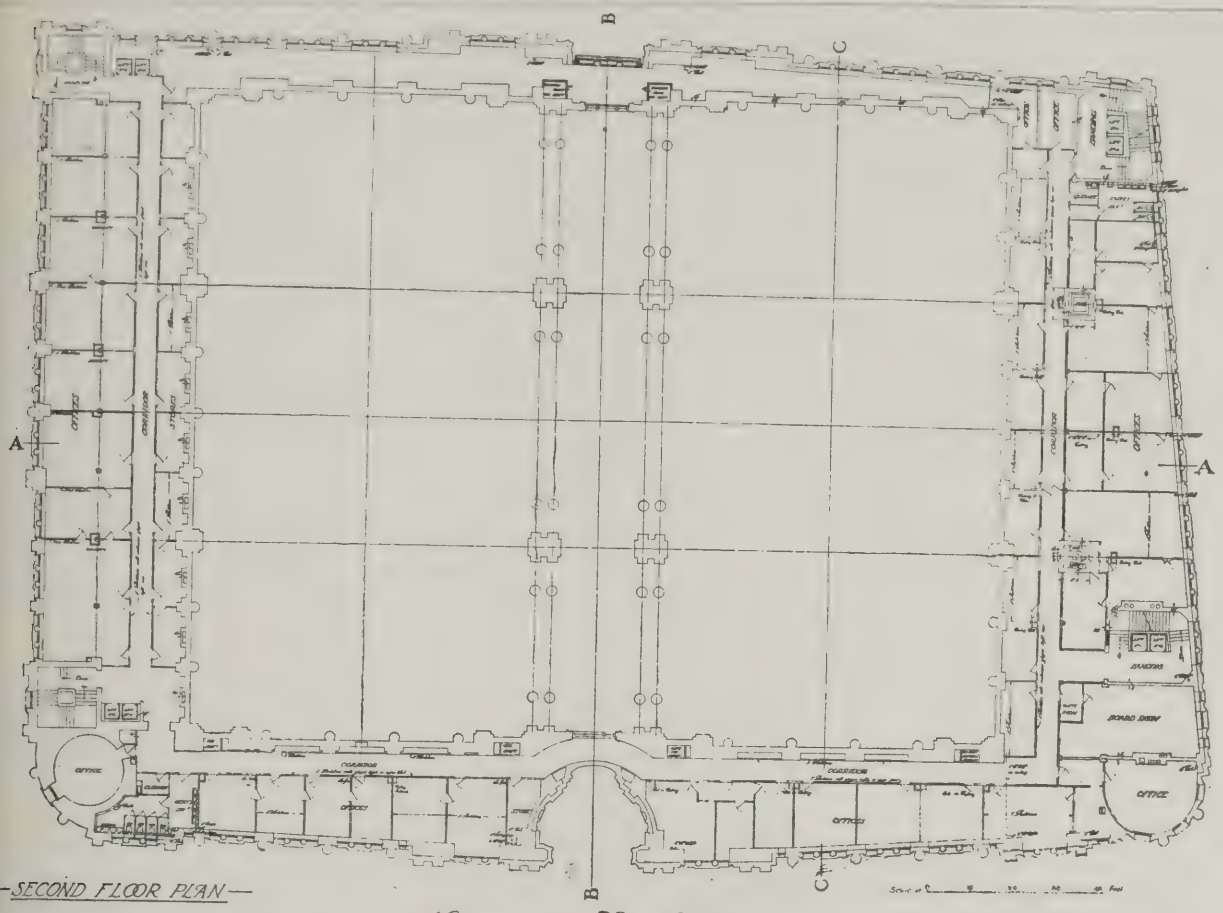
Architectural emphasis is rightly given to the principal entrance of the new Royal Exchange building, the immense arched opening through which access is gained to the Great Hall being flanked on either side by wide bays of dignified and distinctive architectural treatment.

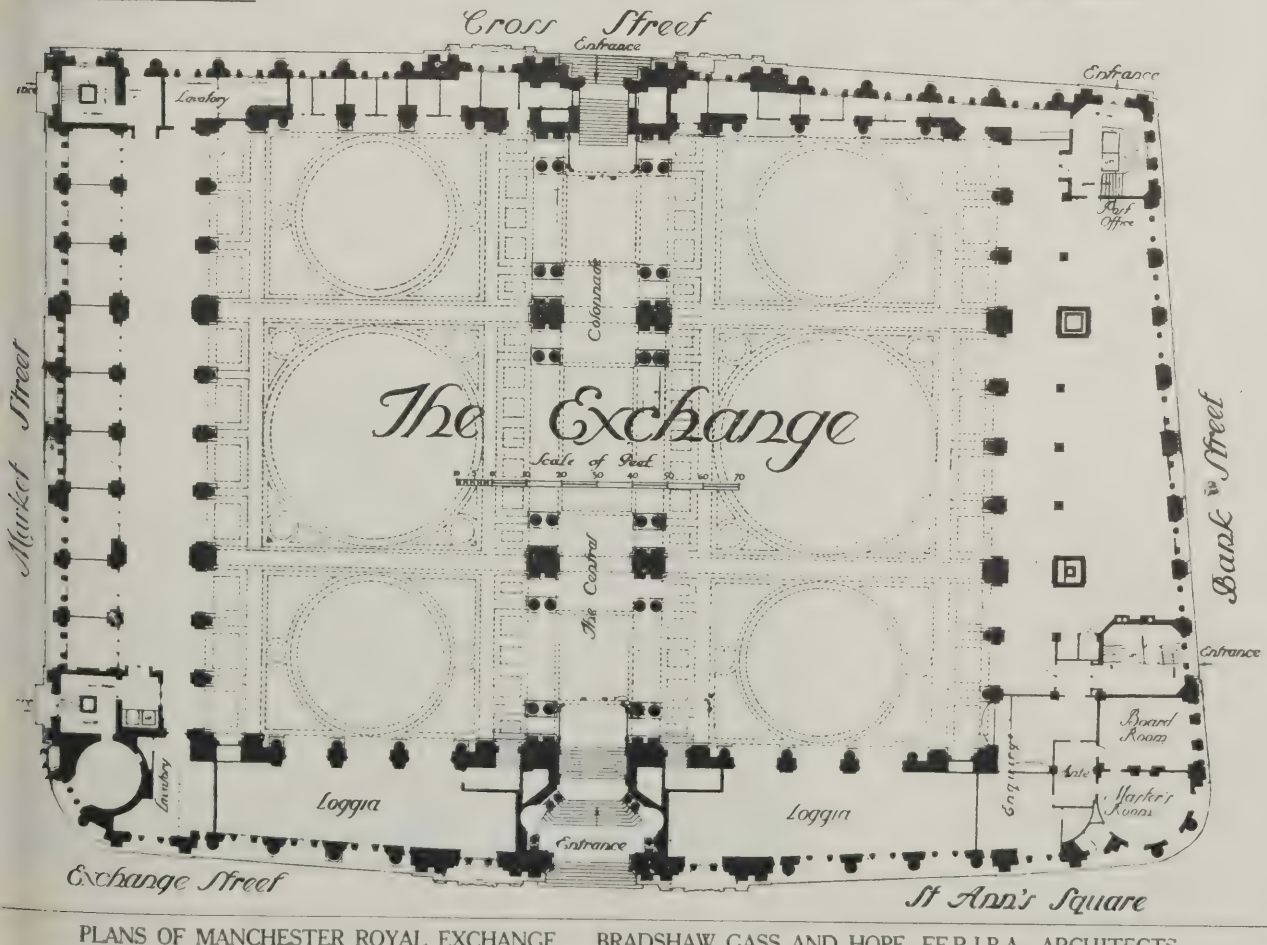
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tirely new building erected, which s considered would suffice for cen- . It is this building, which has been extended, practically doubled. istory of the Exchange extends over ears, and there are now over 10,000 ers.

The building occupies an island site, 8,222 square yards, or 1.7 acres in extent, in the centre of the business part of the city, and bounded by Market Street, Cross Street, Bank Street, St. Ann's Square and Exchange Street.

The architectural treatment both of the exterior and interior presented a problem of great difficulty, as it was desired that the finished structure should form a complete entity of distinctive character, and at the same time certain features and portions of the old building had to be retained.





PLANS OF MANCHESTER ROYAL EXCHANGE. BRADSHAW GASS AND HOPE, FF.R.I.B.A., ARCHITECTS.

Exterior

The completed Exchange is an imposing block of strong classic character, in which the qualities of dignity and repose have received consideration.

The ground floor with its shops on all fronts is treated with rusticated stone piers to form a base of suitable strength. Above this rises the graceful Corinthian order which is a striking feature of the elevations, and marks the position of the Exchange proper in the building. The lines of this order, terminated at the corners of the structure, and strengthened at the main entrances by pylon features, are carried round all four façades; and above the cornice of the order (carrying upwards its lines) an attic story crowned and enriched by an open balustrade leads up to the steep-pitched green-slated roof surmounted by a well-defined ridge line.

The filling of the bays between the columns of the main order has been designed in its fenestration to give scale to the façades and at the same time to provide the maximum amount of light essential for business requirements. The lower part is treated with arches containing a small order, above which and immediately beneath the main entablature runs a series of grouped windows.

Advantage has been taken of the irregularities of the building lines to give the frontages to St. Ann's Square and Cross Street a slight curve throughout their length, thus softening and improving the lines of the cornice and giving greater continuity to the whole design.

In the centre of the main fronts are placed the two principal entrances to the Exchange Hall (the *raison d'être* of the whole building). The more important of these, that on the St. Ann's Square side, is given fitting prominence, being approached through a spacious archway within which rises a flight of steps, passing through a richly treated semicircular stone vestibule with a Doric order, above which runs a balustraded open balcony, the whole surmounted by an enriched stonework semi-dome. In addition to the two main entrances, four subsidiary ones are provided with staircases and passenger lifts to give access to all parts of the building. The clock tower at the corner of Market Street and Exchange Street, so long a feature of the old Exchange and a landmark in the city, has been retained and embodied in the completed structure, and at the St. Ann's Square and Bank Street end of the building is balanced by a curved cornice treatment, crowned by a low-set slated dome.

Interior

The Great Hall of the Exchange occupies practically the entire extent of the site on the first floor, with the exception of the space required for walls and staircases, its chief dimensions being, length 310 ft., and width 215 ft.

Crossing the hall between the principal entrances there is formed a colonnade with three great arches supported on piers and grouped columns, forming an architectural feature reminiscent of Imperial Roman buildings.

The Corinthian order, with its marble columns, a feature of the interior of the older hall, has been retained and reproduced in the extension, but all the remaining detail and ornament have been re-designed and re-modelled to bring them into proportion and harmony with the greatly increased scale of the interior.

Above this Corinthian order runs an attic story, having at either side of the hall a series of clerestory windows, leading up to the enriched plaster ceiling, which is surmounted by two large and four smaller glazed domes (the former having a diameter of 62 ft.). The pinnacles of the lanterns rise to a height of 130 ft. above the street level.

The result is a hall at once impressive and harmonious in effect, the rich warmth of the marble-work blending with the simplicity of the wall treatment, the room at the same time being eminently suitable for the practical requirements of the business activities it houses.

The Exchange administrative office, boardroom, and master's room are conveniently arranged *en suite* with the hall, from which they are readily accessible for all purposes. They occupy the Bank Street, St. Ann's Square corner of the building.

In addition to the large hall, other rooms are devoted to the use of members, and these include a large reading-room, with adjacent smoking balcony, cloakrooms, ample and convenient lavatory accommodation, and a telephone department containing an installation of fifty-three lines. There is also in service a private wire from this Exchange Liverpool Cotton Exchange, on w installed a telewriter system, throughout the day the quotations Liverpool Cotton Market, these tions being immediately posted two cotton market report boards 62 ft. long by 9 ft. high, fixed Exchange Hall at a height of 45 ft the floor level and visible from a of the floor.

Column printers (tickers) for ceipt of telegraphic news, mark otherwise, are installed, and speci graph facilities are provided t which some 20,000 telegrams are r and dispatched annually.

General Accommodatio

In addition to the Exchange a mises above mentioned, around th Hall there are ranged some 250 conveniently connected by corrid with full lift service, these suites most part being occupied by b firms whose work is closely co with the Exchange. The offices o companies and postal services convenient positions on the mai There are also thirty-eight busine mises on the street frontages occu a variety of trades. Within the b are housed such important organi as the Manchester Chamber of Co



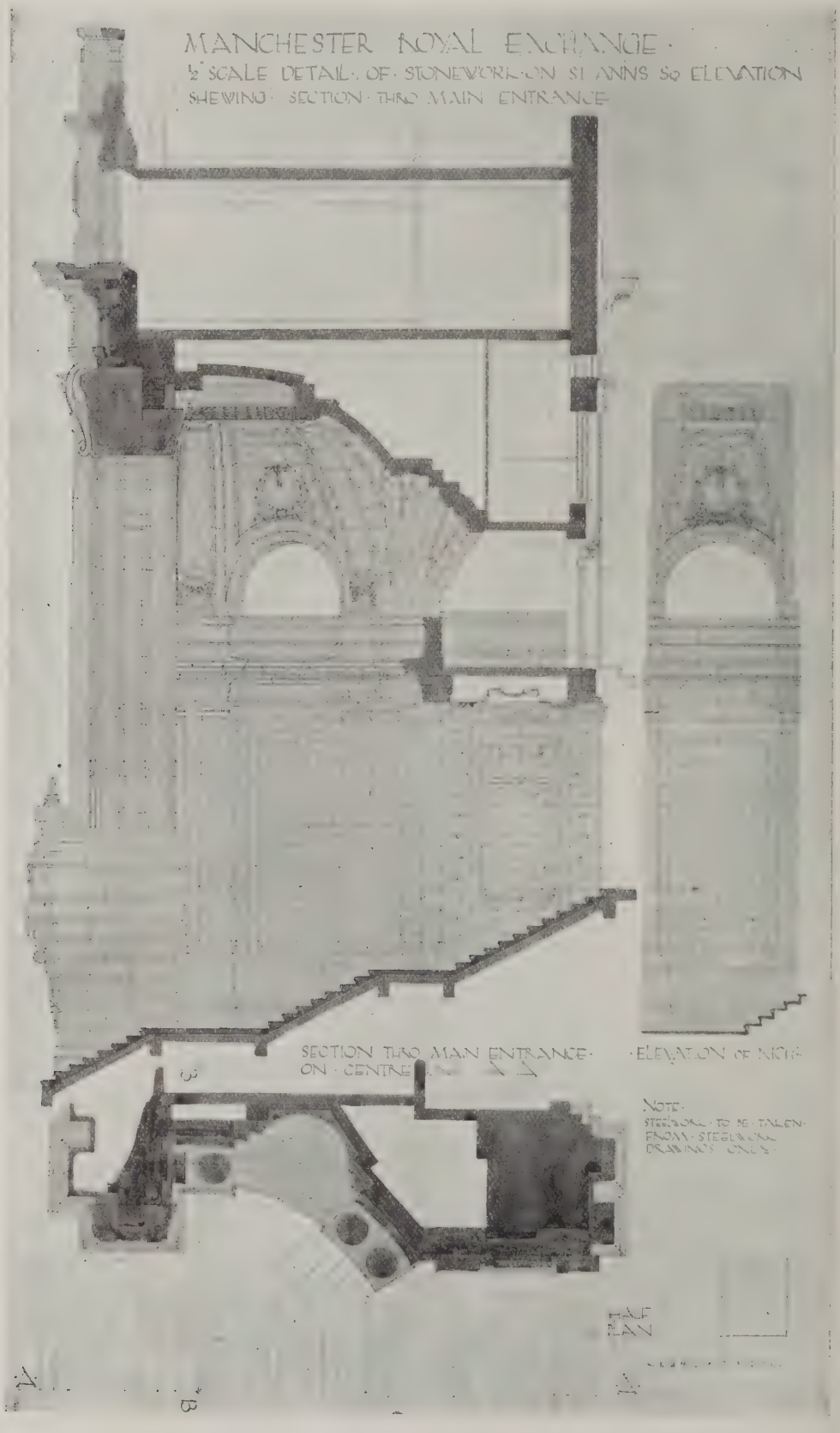
Photo: Stewar

MANCHESTER ROYAL EXCHANGE: VIEW SHOWING PART OF THE OLD W

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Architects' Working Drawings. 43.—Manchester

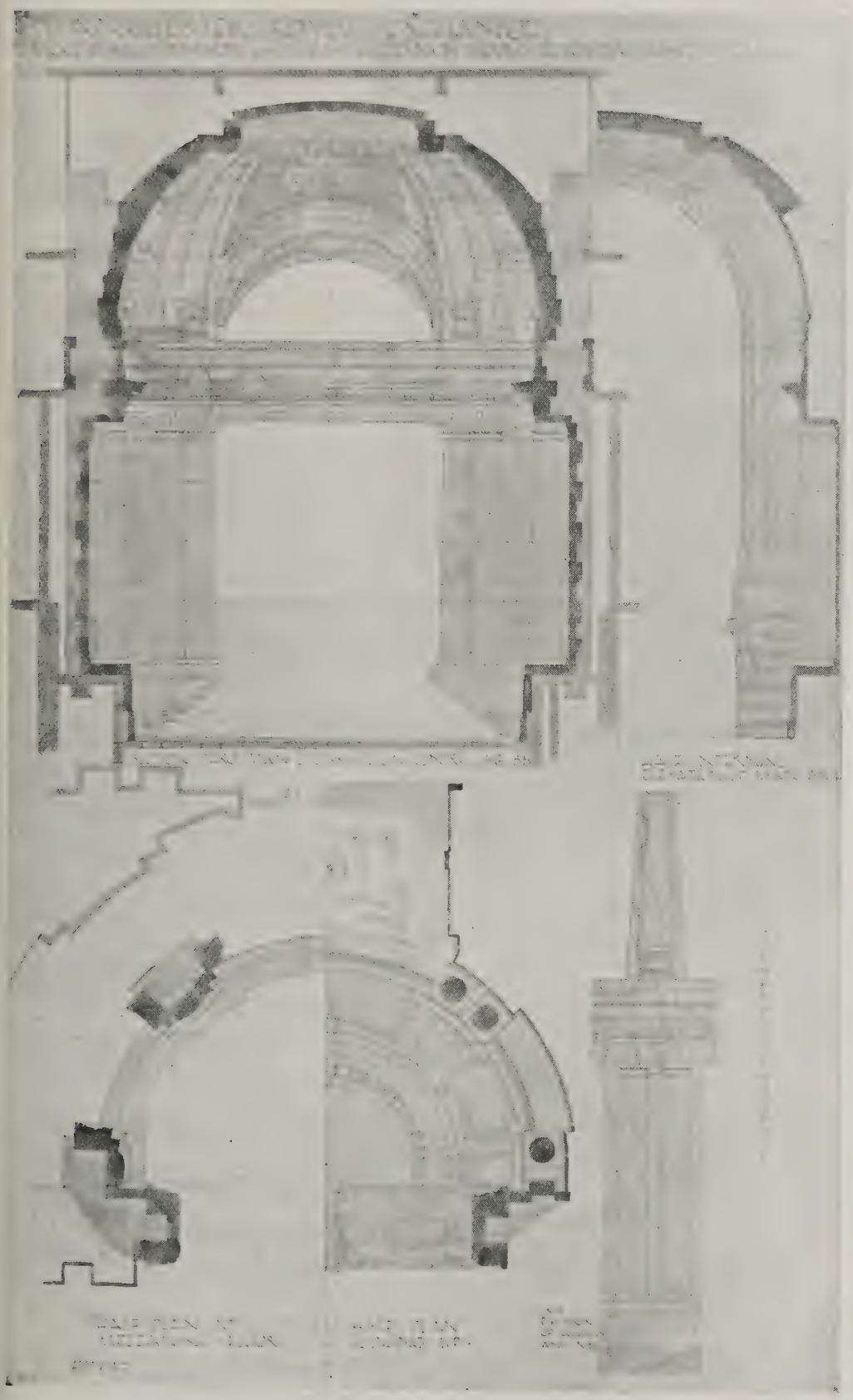
Bradshaw Gass a



The Great Hall of the Manchester Royal Exchange (the *raison d'être* of the whole building) is appro
shown in the above drawings) being given a special prominence and a distinctive architectural trea
semicircular stone vestibule having a Doric order, above which runs a balustraded open balcony, the who

hange Extension : Details of Principal Entrance

.I.B.A., Architects



wo principal entrances, the more important of these (that on the St. Ann's Square side, which is a spacious archway, within which rise three flights of steps, passing through a richly treated an enriched stonework semi-dome. A photographic illustration of this vestibule is given on page 435.

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ing House; the Trade Marks Depart-
t of the Board of Trade; the offices of
Wall-paper Manufacturers, Ltd.; the
eration of Master Cotton Spinners;
British Cotton Growing Association,
the Manchester Corporation Commer-
Library, all having interests very
ely associated with the businesses
ch find accommodation in the Ex-
nge. There is also a branch post office.
accordance with the conditions im-
d by the Act of Parliament, an arcade
foot passengers is formed through the
ding under the Exchange Hall, but
treet level, to replace the old Bank
et, closed by the extensions. Shops
placed on either side of this arcade,
opening from it and also having
ss to St. Ann's Square, Bank Street,
Cross Street, are the spacious up-to-
and well-proportioned restaurant
nises of "The Manchester Limited,"
three lunch bars, a smoke-room, and
ard-room all on the ground floor level,
having all the conveniences necessary
modern high-class restaurant, with
mple and well-ventilated kitchen and
r requisites for quick and effective
king.

he basements of the Exchange, which
two stories deep below the street
l, and hewn out of the solid sand-
e at the bottom, are utilized for
age accommodation of an important
racter, with ample provision of goods
, and to these basements access for
or and horse-drawn wagons is pro-
d by a powerful hydraulic hoist from
street connecting to a central cart-
traversing the premises at the lowest
l.



MANCHESTER ROYAL EXCHANGE: A PRIVATE ROOM.

Construction

Externally the buildings are faced with Darley Dale stone on all frontages, the roof-slopes covered with Westmorland green slates, and the domes formed of patent glazing with lead-clothed steel bars and reinforced glass. The new work throughout is entirely of fireproof construction, constructional steel and reinforced concrete being used for the framework and floor formation. Fibrous plaster is largely used in the interior finishings, ceiling, and wall-panels, mouldings and ornament.

The floor of the Exchange itself is covered with maple wood blocks enclosed in wide margins of walnut.

The amenities of a great building of this kind are carefully provided for, and the lighting, heating, and ventilating systems have been closely considered so as to give the best possible results.

The ventilation of so vast a space is a matter of the greatest importance and, as arranged on the Plenum system, will provide an ample supply of air, which can be purified and screened as required to meet the varying conditions of atmosphere to be found in all large cities.

Reinforced concrete construction, carried out by Stuart's Granolithic Co., Ltd., has been used for the most part throughout. The work is of the ordinary type—reinforced concrete columns, beams, decking, granolithic staircases, pavings, mansards, and radiator clothings. The most interesting features from the engineering point of view are the huge girders in reinforced concrete spanning the main halls and carrying the big domes overhead.

The Trussed Concrete Steel Co., Ltd. were responsible for the design of the reinforced concrete framework and all the floors.

When the building was first started it was arranged that structural steelwork should be used in the framework. Before the work had proceeded very far the war made it difficult to procure the steel members, and the Trussed Concrete Steel Co. were then consulted to determine whether it was possible to finish the building with a reinforced concrete skeleton. It was found that this alteration could take place, and although many difficulties were involved in connecting the reinforced concrete skeleton with the various portions of the structural steel skeleton,



Photos: Stewart Bale.

VIEW IN THE GREAT HALL OF MANCHESTER ROYAL EXCHANGE

the problems were nevertheless solved, and as a result the entire superstructure, including the skeleton and all the floors, is now constructed of reinforced concrete on the Kahn System.

Some of the structural steelwork used in the building was supplied by Redpath, Brown & Co., Ltd.

Hollow Siegwart floor-beams, supplied by the Siegwart Fireproof Floor Co., Ltd., were used in the reconstruction of the old Exchange floor, time being an important factor, and the nature of the new construction necessitating a pre-cast floor which required no centering. The existing steel joist and pugging floor remained in situ, and the new floor was fixed over same at a new level of 1 ft. 9 in. above the old floor. The space left between the floors was utilized as hot air ducts for the purpose of heating and ventilation.

The floor area was arranged in spans averaging 17 ft., the bearings being provided by pre-cast concrete sleeper walls made by the Siegwart Company, and resting on the existing floor. The ducts for conducting the hot air were rendered inside to give a smooth finish. The whole floor area was rendered with cement screeding, rubbed smooth to take a wood block floor-finish.

The wrought-iron lift enclosures and balconies were made and fixed by Hart, Son, Peard & Co., Ltd.

Windows

The whole of the steel windows, numbering over 700, were supplied by Henry Hope and Sons, of Birmingham. These were manufactured from solid rolled-steel sections, each bar being hydraulically straightened and all corners welded by the oxy-acetylene process. The casements are chiefly of the vertically pivoted type, to allow for cleaning from the inside, and have been fitted with a solid gunmetal two-point handle (which gives a little ventilation without rattling), and the patent sliding stay, the hinges being also solid bronze, machine cut and bored. Messrs. Hope also carried out the patent glazing of the six domes over the big hall. The system consists of a rust-proofed steel bar totally enclosed in a lead sheath, the ends being completely sealed by means of soldering. It is thus impossible for any moisture to get into the steel core and set up corrosion. The chief feature, however, of this patent system lies in the copper shoe or glass stop which holds the bar and glass in position without in any way piercing the former. By means of a clip around the top of the bar it is impossible for the stop to give way and thus allow the glass to slip. To ensure a perfect bedding glass is laid on a thick oiled asbestos cord, and should there be any vibration on the roof the glass, having an even seating throughout, is able to withstand any shock. In case of breakage the lead wings can be easily raised, enabling a new sheet of glass to be inserted at a minimum of cost.

Roofs

The asphalt work was laid by Thomas Faldo & Co., Ltd., and is remarkable in its varied applications. It is applied to flat, sloping, and vertical surfaces, on concrete, wood, stone, terra-cotta, and brick, also on circular domes on concrete and wood. All the stone cornices and gutters, concrete gutters and timber-constructed hips and valley gutters are lined with it. The aprons at the underside of the window sills are formed and dressed down over the slates, also the seatings for iron gutters over window heads, etc. The dormer tops (on concrete), dormer cheeks (on timber), and secret gutters at base of same on the sloping roofs are all covered with the same material. The whole of the raw material was imported from the Seyssel Mines in Haute Savoie, France, and manufactured at the firm's works, Somerset Wharf, Rotherhithe, S.E.

With regard to internal equipment, cotton report boards, post office telegraph screens, bar and office screens and counters, calculating tables, reading-room fittings, and advertisement boards, were all supplied by Thomas Scott & Co., of Manchester.

William Thornton and Sons, of Liverpool, were general contractors for superstructure, and William Gornall and Sons, Ltd., of Bolton, for the demolition of old building and foundations to new extension.

The following were sub-contractors: J. Jaffrey & Co., Manchester (plumbing); J. Tanner and Son, Liverpool (plastering and decorating); James Gibbons, Wolverhampton (locks and door furniture); Shanks & Co., Ltd., Manchester (sanitary fittings); James Cormack and Sons, Ltd., Glasgow (heating and ventilating); John Collier & Co., Manchester (electric lighting); Bellman, Ivey and Carter, Ltd., London (Scagliola marble); C. W. Williams & Co., Manchester (tiling); Fenning & Co., Ltd., London (marble); Hollis Brothers & Co., Ltd., Hull (wood-block flooring); Earp, Hobbs and Miller, Manchester (carving); Smith, Major and Stevens, Ltd., Northampton (electric lifts); J. Shaw and Sons, Ltd., Salford (hydraulic lifts); Arthur Wardle, Manchester (decoration of board-room and master's room); John Faulkner, Manchester (lightning conductor); W. J. Pearce, Ltd., Cheshire (leaded lights); Kendal, Milne & Co., Manchester (reading-room seating); Thaddeus, Hyatt & Co., London (pavement lights); MacFarlane & Co., Glasgow (cast-iron balusters); T. Weighill, Liverpool (telephone boxes); Underwood, Ltd., Manchester (electric light fittings).

Correspondence

How to Restore Confidence in Building

To the Editors of THE ARCHITECTS' JOURNAL.

SIRS,—Your correspondent Mr. Niel Martin Kaye, replying in your current issue to my letter which appeared in your issue dated September 23, makes a statement to which exception must be taken without delay. He writes: "Architects and surveyors at present are powerless because of the prices in the building trade, which the builders and builders' manufacturers partly control, and because of the cost of labour." In effect, the public are suffering from builders' rings.

While it is true the selling prices of certain materials are controlled by reason of various manufacturers' combinations, there is absolutely no combination or understanding amongst builders. I would serve any useful purpose my would be quite ready to allow either Institute of Builders or the Survey Institution to nominate a representa to spend a month in our estimating o to watch the whole process of tenderi

Mr. Kaye suggests that some buil should offer to do work at cost p There is little doubt that many buil of standing, in view of present conditi would be ready to accept approved tracts at cost price. That is *not* to that clients should be offered work cost price and be kept in the dark a the eventual cost.

Quantities should be taken out priced at current prices, the result b the total which the client can be ca upon to meet. If the job costs more builder stands the loss. But if the cost of material and labour plus agreed establishment charge percen (to cover office charges and use of pl is less than the estimated cost, then saving to be credited to the buil owner.

The preliminary step to help the pre difficulties may, as Mr. Kaye sugg lie with the builder, but is there anyt to stop the architect approaching builder? The architect knows where work is hung up, the builder does if he did he would probably go along make an offer. Several building ow have recently started work on very terms. The man who waits for st to fall does not always buy at bot prices.

Yours faithfully,

HIGGS AND HILL, LTD.
Edmond J. Hill, Directo

What of a Twentieth Century Tradition?

To the Editors of THE ARCHITECTS' JOURNAL.

SIRS,—Is it not most unreasonable Mr. Crossley Davies, in your issue September 28, to compare with the in which we live those of Elizabeth, A the first George and Victoria; to comp a period of transition with one of culm tion?. Architecture reflects the civil tion which produces it not through self-conscious efforts of its devotees, because it is based on the traditions material requirements of that same ci zation. If our Georgian "age" has its "distinct architectural note," ma not be because our twentieth century not yet evolved its distinct civilizati These are ebullient times marked strife, disjointedness, discontentedn and incompleteness. Why then exp of contemporary architecture definit and harmony?

"Are we living in the dead past, carving our own way in the living present Who can deny that we are carv zealously? Architects as such, howe cannot be in the van of the army of civ zation; they must necessarily be nu bered among the camp followers.

Is it not significant that both Rus and Morris in their desire to resuscit the arts were induced by the hard lo of facts to give up tackling the arts di and concentrate on considerations sociology and economics?

AUSTEN ST. B. HARRISON



Photo: Stewart Bale.

The "floor" of Manchester Royal Exchange occupies the greater part of the building, the site of which is about an acre and three-quarters in extent. The floor space is divided into two rectangular compartments by a central colonnade, whose four great groups of piers and coupled columns form the intermediate support for the immense doomed roof.

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Book Reviews

ırough the Liverpool Looking-Glass

OFESSOR Reilly's little pamphlet, "Some Liverpool Streets and Buildngs in 1921," reproduces a series of es that appeared originally in "The pool Daily Post and Mercury." It is enough that a daily newspaper d have invited an architect to write rchitecture in its pages; it is still strange that the reading public should accorded the articles the welcome is signalized in their reissue. An luction on "Character in Architec- makes several interesting points— a tradition is to develop out of our of "styles" is very cleverly sug- l; and Professor Reilly enforces again his favourite contention that tecture is advancing towards cos- litanism, is becoming international. storehouse of the whole world and e past is to be ransacked to provide recise forms necessary to the ex- on of our complicated energies, so architects may be "Roman when want to express power, as in their railway stations; Greek when they to express refinement, as in their alleries and museums; Italian or ian when they want to express the stic comforts or virtues." Pro- Reilly's theory is certainly borne y the trend of architectural events nerica under the lead of McKim, and White. "The great post- al styles are now consciously " says the professor, "according to rogramme set for the definite ex- on each can convey." "It is only knowledge of the precedents estab- by past forms for certain predica- that the ordinary architect can to give the right character to his ngs." Certainly this was not the n the ages of tradition or faith; but to-day," he goes on, "must y be replaced by knowledge. Know- cannot give the same sublime con- e, but it does prevent blunders. ovides in architecture an alphabet language of immense range and lity ready for use. It is a language like Chinese, in which a separate ol stands for each word or phrase, is, consequently, rather difficult to The complete range of it in n times has only been mastered by few . . ." Professor Reilly is not ned to deny that one may master ntax without excelling in the use language.

that knowledge can do is to "pre- olunders," as Professor Reilly says; we are to be content with that, to with archæological preciseness, to grammatically, pedantically, pro- ally, we are making the avoidance takes our ambition. That Professor does not intend to suggest this *io ad absurdum*, he shows clearly h, but he gives no clue to the is root of the whole matter, which te simply, that no tradition will be ed, no synthetic international ar- ture expressive of this age be d, until some conception or modern of architecture is obtained. Upon an Idea, born in the heart of a visionary, fanned into flame by the aspirations of a School, and expressed, or, rather, ejaculated at last in material form, seems to depend the whole future of a tradition. In architecture, as in everything else, knowledge is, of course, not an end, but a means of attaining a wide outlook, an exalted conception of life; in that, rather than in the technical mastery it effects, lies its true importance.

Though, apart from this chapter on generalities, the brochure is expressly devoted to the buildings of Liverpool, it sustains its interest for the "foreigner."

Professor Reilly has caught to a remarkable degree a peculiar atmosphere of relish which is entirely infectious—a relish quite free from gusto. He has a dexterous knack of moderating both praise and blame, and is thus never in danger of tiresome exaggeration. He is in sympathy with his subject, and can reprove or commend with the magnanimity of one to whom the beautiful and the ugly exist only as manifestations of the same human emotion. His criticism, too, is delightful. One can fancy his victims congratulating themselves on being the targets for such genial wit. Whether we read of the toy-shop whose twin Teutonic towers and showcase-window between "give it a very toy-shop air. If it were only painted vermilion and white, one would expect the roof to take off and the front to open with a hinge"; or of the offices of the two chief newspapers "facing one another like waiting heavyweights," his style is always vivacious and full of colour. He rather flatters Liverpool, however. The humour of its shopkeepers is equalled only by their delicate fancy; even its manufacturers erect for use as a factory, a cathedral, with long vistas, deep and dark recesses, rays of light trickling through an intricacy of piers, and little men "to be seen high up above your head, attending to great travelling cranes."

The writer certainly has a charming journalistic touch, giving to intrinsically unspiritual dead things like buildings the human associations, the human relations, the bustle and colour of life which are essential to the popular appreciation of our art. He says of Church Street, "It should have bright kiosks for newspapers and advertisements; it should encourage the old men who sell balloons and other cheerful absurdities; and it should hang out flags on the slightest opportunity." It "is in essence picturesque and romantic. Church Street, therefore, should live up to its character." This paragraph, perhaps, expresses as well as can be expressed the true significance of architecture in human life; how it is interwoven with all the human emotions, and manifests in substance the varied currents of the human soul—now in sympathy with the elemental, the sublime; and now encouraging "the old men who sell balloons and other cheerful absurdities." Every architect will be glad to possess this quite delightful brochure.

H. DE C.

Some Liverpool Streets and Buildings in 1921. By C. H. Reilly, O.B.E., M.A., F.R.I.B.A. "The Liverpool Daily Post and Mercury," Liverpool, 1921. Price 3s. 6d.

London of the Future

It was inevitable that, sooner or later, the aims and ambitions of so vigorous and so vital an institution as the London Society should be expressed and expounded in a book that in size, substance, and general seriousness, should do no discredit to its great subject. Such a book has been produced, without haste, but with no avoidable delay, under the editorship of Sir Aston Webb, P.R.A., who has had the assistance of nearly a score of more or less eminent lovers of London, each, like Sir Aston himself, a master in his own special domain, as well as having an outlook stretching far beyond its confines, and each adding to the keen concentration and the vivid insight of the specialist that greater breadth of view that redeems specialization from superficiality and paltriness, not to say bigotry. London has too large a range and variety of interests ever to possess a lasting attraction for the mere faddist, or the dilettante who has no higher object than that of dalliance. The London Society means business, and is perfectly well aware of the magnitude of the task it has undertaken, and of the difficulties and discouragements it must overcome before it can achieve effectual work for London. The conception and the construction of the book now before us symbolize the sincerity, comprehensiveness, and the vigour with which the Society is entering upon its arduous campaign for the betterment of London.

If only the Londoner's sense of propriety were half as keen as his sense of property, the ultimate issue would not be long in doubt. If only the public conscience in such matters could be effectually aroused, if the people could be brought to realize what London is and what it might be, and to perceive what immense ultimate gains would reward a present sacrifice that would be in comparison infinitesimally small, there would be not the slightest hesitation about accepting at once and with gratitude the enlightened advice that the London Society exists to provide—advice that it had already embodied in many minor and fugitive publications, but never so impressively as in this symposium of opinion on "London of the Future." This work collects, or at least summarizes, all the most convincing evidence and all the most powerful arguments that can be adduced in making out an unanswerable case for the reformation of London streets and structures—for the regeneration of London.

Sir Aston Webb covers the whole field in his introduction, but of course leaves to his fine array of contributors the elaboration of details. This he can do safely enough, for his collaborators are not faddists nor extremists: they all keep well within the bounds of practicality, and each can adduce a reason for the faith that is in him. Mr. T. Raffles Davison presents a beautiful but not unrealizable vision of what London might be if it were replanned with a due regard for amenity. Col. Hellard sets forth rational and convincing views with respect to roads, streets, and traffic. Mr. H. J. Leaning treats of railway re

construction, and succeeds in showing that reform would ensure not only great conveniences, but great economies, which, indeed, may be said to be a basic principle of all the various schemes for replanning London, a point on which we should be inclined always to lay considerable stress; the appeal to cupidity being, alas! so much more generally and more quickly effectual than the appeal to less sordid motives. A chapter dealing with a subject that has in some measure the charm of novelty is that by Lord Montagu of Beaulieu on commercial aviation, as it is likely to affect London; and it is perfectly obvious that, as he avers in his opening sentence, "London, the heart of the British Empire, will of necessity be one of the chief centres from which commercial flying will start and arrive in future"; but, notoriously, London is at present very inadequately provided with aerodromes and landing-places.

There are in all twelve chapters and an introduction. It is all very excellent reading, each article dealing with some particular phase of the subject, and masterly trenchancy is observable in all. This quality of compression is especially conspicuous in Professor Adshead's chapter on Central London, which is admittedly the most difficult of the areas crying aloud for amelioration. Mr. Raymond Unwin's chapter on development deals largely with general principles and practical problems, and is, perhaps, exceptional in being a little diffuse in treatment. A chapter on bridges shows Sir Reginald Blomfield's customary grace and grip; and Mr. Paul Waterhouse supplies a valuable résumé of the prolonged and painstaking study that he has made of the Surrey side. Other chapters in this important volume deal respectively with the Port of London, the East End, Housing, the Government of London (by Mr. W. E. Riley, formerly Architect to the London County Council), Parks and Open Spaces, London as the Heart of the Empire, the Smoke Plague (by the late Sir W. B. Richmond), and "The Spirit of London," by the Marquess of Crewe. It was a happy inspiration to conclude the volume with Lord Crewe's delightful article, which sheds the aroma of literature over the entire subject. Most of the chapters are necessarily impersonal, but the Spirit of London is obviously that of its citizens past and present. It is, of course, impossible to deal with its roads and its buildings without some faint suggestion at least of the human interest with which they are so intimately involved; but, except in the Bishop of Stepney's chapter on the East End, and in this concluding paper, that element is taken as read. Lord Crewe supplies the deficiency, recalling some of the names that are inalienably associated with London—mostly literary names, as Dryden, Milton, Shakespeare, Dr. Johnson, Lamb, Keats, Shelley—he does not forget the artists and statesmen, nor, course, the first and greatest of Londo town-planners, Sir Christopher Wre and from this grand procession he duces that "London has its own soul keep among all projects of material i provement and industrial expansion That that is an aspect of the question whi is never for a moment overlooked by t London Society is to be plainly inferr from almost every page of the fine bo they have produced.

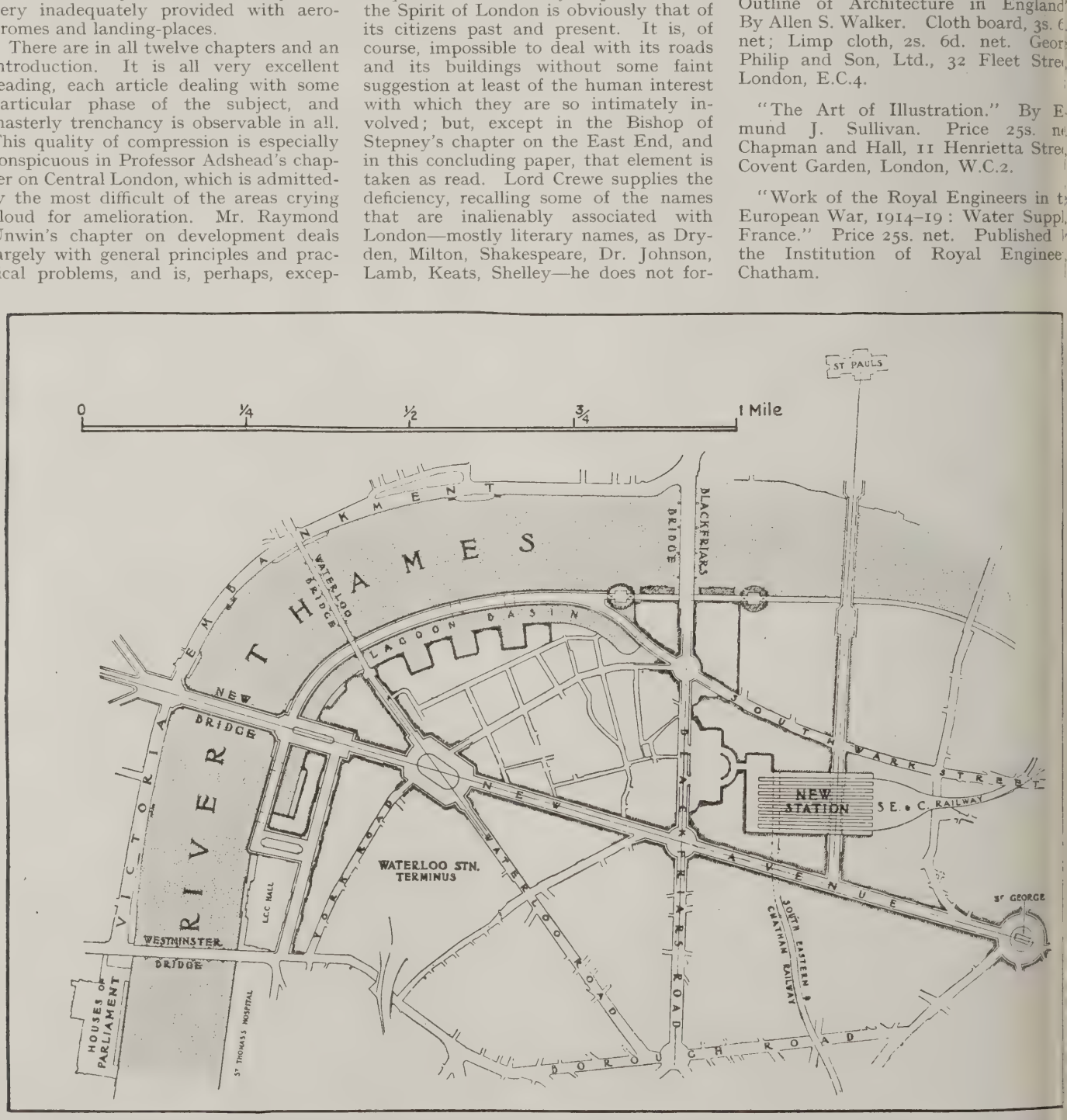
London of the Future. By the London Soci under the Editorship of Sir Aston Webb, K.C.V. P.R.A. London: T. Fisher Unwin, Ltd., Adel Terrace. Price 42s.

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"The Romance of Building. A Sho Outline of Architecture in England By Allen S. Walker. Cloth board, 3s. 6 net; Limp cloth, 2s. 6d. net. Geor Philip and Son, Ltd., 32 Fleet Stre London, E.C.4.

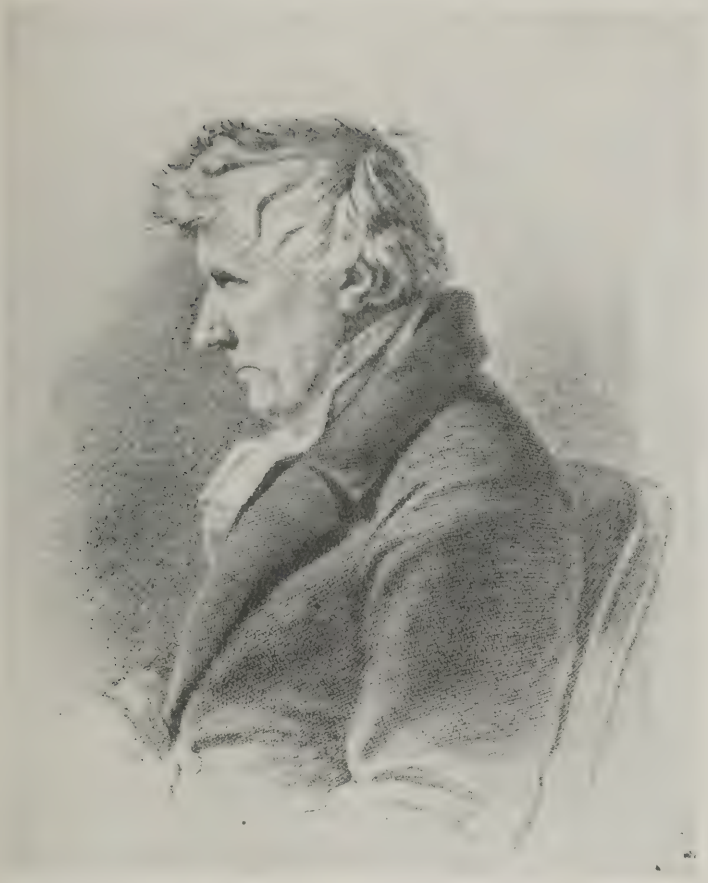
"The Art of Illustration." By E mund J. Sullivan. Price 25s. n Chapman and Hall, 11 Henrietta Stre Covent Garden, London, W.C.2.

"Work of the Royal Engineers in t European War, 1914–19: Water Suppl France." Price 25s. net. Published the Institution of Royal Enginee Chatham.



MR. PAUL WATERHOUSE'S SCHEME FOR A NEW BRIDGE ACROSS THE THAMES AND THE REPLANNING OF THE SURREY SIDE.

(*From "London of the Future"*)



JOHN RENNIE, THE CENTENARY OF WHOSE DEATH OCCURRED LAST WEEK.

hn Rennie's Centenary

uesday, October 4, was the centenary he death of John Rennie. Born at ntassie, East Lothian, on June 7, , Rennie, the son of a farmer, started as a millwright, and later studied at nburgh University. In 1784 he was loyed by James Watt, and in 1791, ie age of thirty, he commenced prac- on his own account in London as an neer.

lthough Rennie acquired fame in y branches of engineering, it is by architectural structure, Waterloo ge, that he is chiefly known. Canova ribed it as the "noblest bridge in the d." Opened by Prince Regent rge IV) in 1817, it was originally d Strand Bridge, but the name was ged after the Battle of Waterloo.

ennie's skill as a bridge builder was however, confined to Waterloo ge. Many other fine examples were pleted from his designs, some of them, cially those at Leeds, Boston (Lincs), selburgh, New Galloway, Newton rt, and Kelso being especially notable. as also responsible for the first South- Bridge, and designed the existing lon Bridge, which, however, was ed out by his son.

sides planning the breakwater at louth, admitted to be one of the most rkable engineering feats in the world, ie carried out great improvements ie harbours at Plymouth, Chatham, rness, and Portsmouth, assisted in the n of the Bell Rock lighthouse, and ned the London Docks, and others Dublin, Hull, Blackwall, Greenock, rpool, and Leith.

nnie died at his house in Stamford t on October 4, 1821, and was buried in St. Paul's Cathedral, by the side of Sir Christopher Wren. He had two sons. George, the elder, was at one time superintendent of the machinery at the Mint. On the death of his father, George entered into partnership with his brother John, who was knighted in 1831, on the completion of London Bridge.

The Late Mr. F. G. Briggs, F.R.I.B.A.

As briefly announced in our last issue, the death occurred on September 28, at Birkdale, of Mr. Frank Gatley Briggs, F.R.I.B.A., partner in the firm of Briggs and Thornely, of Liverpool. A native of Bollington, Cheshire, Mr. Briggs was educated at the Lower Bank Academy, Blackburn, and served his articles with Mr. James Birtwistle, of the latter town. In 1887 he commenced practice in Blackburn and Liverpool, and in 1900 became a Fellow of the R.I.B.A. and a member of the firm of Briggs, Wolstenholme, and Thornely.

Among the architectural competitions won by Mr. Briggs (some in conjunction with his partners) were those for public libraries at Walton, St. Helens, and Stafford; Wigan Technical College; Gamble Institute, St. Helens; King Edward VII Schools, Lytham; Dock Board Offices and The Blue Coat School, Liverpool; Town Hall, Wallasey; and the Sessions House, etc., Blackburn.



THE HOUSE IN STAMFORD STREET IN WHICH JOHN RENNIE DIED

Mr. Briggs has been responsible for a very large amount of important work, which included the head offices for Messrs. Elder Dempster, and the Bank of British West Africa, Liverpool; Public Baths, Blackburn; Palatine Bank, Manchester; Bassara Works, Old Trafford; Johnson Bros. Dye Works, Bootle; British Glanzstoff Works, Flint; Engineering Laboratory and Arts Building, Liverpool University; Egremont Presbyterian Church and Congregational Churches at Darwen, Hollingrove, Kirkham, and St. Helens. Mr. Briggs was fifty-nine years of age. We hope to publish in our next issue a special appreciation by Mr. T. Taliesin Rees, F.R.I.B.A., President of the Liverpool Society, who had long been personally acquainted with the late Mr. Briggs.

The Building Trade's Opportunity

Mr. Ernest Newton, C.B.E., R.A., F.R.I.B.A., in a letter to "The Times," says: Slackness in the building trade is responsible for much unemployment. Full activity would mean not only regular employment for building labour, but corresponding activity in hundreds of other industries. Here is an industry fully equipped, with staff and machinery ready. Two things only are necessary to set it going at full speed: a little enterprise and courage on the part of the public, and lower cost. Lower cost can only be achieved by lower prices of materials, lower wages, and higher output. Wages should be generous but reasonable; there should be no limitation of output. Both the operatives and unions deny that there is any official limitation, but it is common knowledge that it exists, whether official or not. It seems impossible to explode the absurd fallacy that unless a man limits his output there is not enough work to go round. Of course, the cheaper building is, the more is put in hand. There is at the present moment enough work held up because of the impossible cost to keep the building industry fully active for many years. Plans are all ready, and work could begin to-morrow if prices were lower. No one expects to get down to pre-war levels, but we could approximate to them if every man put his back into his job.

Leases in London are falling in, and it is said that the ground landlords, finding it more to their immediate advantage to keep the tenants in the premises at a rack-rent than to grant a building lease at a ground-rent, are inclined to put obstacles in the way of granting new leases to intending builders. This is a short-sighted policy, and if property-owners were more far-seeing, these rebuildings would mean much employment. Again, it is stated that there are hundreds of houses in the West End of London which are too big to let, and which could be converted into good flats, but the ground landlord refuses his permission, and these houses, the alterations of which would provide work for thousands, stand empty. Homes are wanted for every class of the community, and if cost can be reduced to a reasonable level, the prospective demand for building of all kinds is practically unlimited.

(For Editorial comment on Mr. Newton's timely letter see page 427. Mr. Edmond J. Hill's letter on page 446 of this issue deals with the same subject from a different point of view.)

C. R. W. Nevinson's Exhibition

The more one gets into contact w Nevinson's work, the more astonis one becomes at the increasing versati of the man, and—it is even more imp tant these dictyllic days—the m honest and frugal does the artist app alike in his methods and concept Now, all this is made very clear in latest exhibition, at the Leicester Galle Of etchings or pure drawings there none, the forty-one numbers being and water-colours. The former have solid quality issued of "une matu dégagée et bien assise," as Stépha Lauzanne calls it; the water-colours, the other hand, probably give us a m direct insight into his initial vision, vibrant with pristine energy.

I mentioned his versatility. The contain abundant proofs of this. ' Quartier Latin" has the lucidity of D Cameron, but displays a greater prof of technique; there is no pandering factitious demand for contrasts of li and shade. "La Corniche" is tot different. It is an excellent Marcha but a Marchand more partial to des Design governs its message, and it even forcibly carried into the realm colour where the cold greens and b of the sea and palm-trees adumbrate power of complementary colours de applied.

"A Cornish Landscape" is anot instance of design controlling the m throughout. The low and narro compassed colour scheme, the tac suggestion of driving power of rain of the soullessness of the sea, are wor of notice. "Le Roucat Blanc" is rer iscent of an early Derain. Not t



JOHN RENNIE'S CHEF D'ŒUVRE—WATERLOO BRIDGE.



E CENTRAL LONDON MEAT MARKET, SMITHFIELD, AS RECENTLY REPAINTED

son is ever pastiching. He is too t and far too able an artist to do ver, but the same rare quality of cant forms and volumes of Derain dubitably operating in his pictures, specially so in this one. As a matter ct, it shows an unusual selective of design, and when carried out, is in "Portrait of a Montmartre ," mainly by a skilful arrangement of and spots, it stands as a proof of a easoned sensitiveness.

èvres," with the paint thickly put ill appeal to many. Honesty is writ all over it, and more honesty still that amazing effort "An English scape," which does remind one, at of Harpignies, Crome, and even by Brown, with its liberal and tuous brushwork.

ew York, an Abstraction," is in ison s later manner. The angular s bisecting one another are once in evidence, but, granted you cannot ther admire it, you yet cannot deny design its very able and positive g points; observe how the skyscraper of inordinate length, would have been nuch but for the intermediate play ly smoke near the ground.

the water-colour section, both the d of a Girl" and "Head of a Factory have the effectiveness of sheer icity; plain flat washes held by a line ce strong and flowing. Architects stop to admire "Les Jardins du mbourg"; they will like the straight npromising lines of the large foun- basin, fighting, yet supporting, the of dark foliage behind. This, ner with "La Plage" and "Le Pont l," the latter in crayon couté and lash washes, are the essence of direct- and afford all comers a fine chance e how water-colour can be handled ly, determinedly, without sacrificing ce of atmosphere or a streak of osity. Even architects, they say, ppreciate mordant irony at times. at case the terse manifesto which ison has put to his catalogue will bly raise a smile on the tight lips r harassed confrères.

G. HOLT.

A Plea for the Unemployed Painter

It is an odd commentary upon our business methods and our social organization that while a vast amount of building and decorative work is literally rotting away for want of a coat of paint, there should be a small army of operative painters walking the streets looking for employment. Demand remains grimly inactive, and, judged by the general laws of finance, demand is perfectly right; by the universal law of common sense we suspect that it is lamentably wrong. Withholding of orders in the present may, it is true, possibly bring down prices in the future, but meanwhile are we not running up an enormous bill?

Decay waits for no man, but goes on its evil way, heedless of economic conditions. On all sides we may see its handiwork: crumbling stucco, dingy interiors and offices, rusted ironwork. Something in the way of repair work has been accomplished, a little is being done; but the vast majority remains untouched, waiting for cheaper days. It is by no means certain, however, that cheaper days are at hand, or even on the way, and unemployment and industrial misery will not hasten their advent. Would it not be better to face the music bravely, put the work in hand while there are men free to do it, and pay the bill with the same philosophy that we accord to the dentist's charges?

We shall have for consolation the knowledge that what is a comparatively small job to-day would as time goes on become a very large one, so that little if anything would be saved in cash by its postponement, and months of self-respecting cleanliness and comfort would be gained. It is obvious that the painter cannot be allowed to starve, and it is the common purse that will have to maintain him. We may just as well get something for our money.

We in England are extraordinarily slow in appreciation of the delights of perfect cleanliness, and its value as a commercial asset is only just beginning to be realized.

The shops have learnt it, and gleaming palaces enshrine the ministers of our inner and outer comfort. But the professions lag woefully behind, and the City is worst of all. Some mysterious kink will allow a man to arise in the morning, perform his personal cleansing with meticulous care, breakfast in a perfectly appointed home, and then spend the greater part of his day in an atmosphere of dirt and disorder that would make an uneducated hind shudder. They are not necessary, these sordid offices; they are not even politic. Demoralizing to principals, staff, and clients, they actively retard the trans-



THE REPAINTED INTERIOR OF SMITHFIELD MARKET.

action of business, and wage insidious war on health and efficiency.

Here is a wide field for the friendly ministrations of the paint-brush; there are others too numerous to mention. We would plead for a kindlier outlook on the painter and his craft. He, like ourselves, is a victim of economic upheaval, and his is the severer suffering. Can we not make friends with him, realize his real value in our domestic, commercial, and national existence, give him work and pay him cheerfully, and, above all, "do it now"?

E. N. B.

B.C.G.A. Conference at Glasgow

Mr. D. Milne Watson, M.A., LL.B., in his presidential address to the tenth annual conference of the British Commercial Gas Association, held at Glasgow, reviewed the work of the Association during the ten years of its existence. He said that the fundamental object of the Association was to raise throughout the industry the standard of service to the community, which was the basis of its existence and the hope of its future. Besides the instruction of public opinion its whole campaign of co-operative publicity and service development did good in other ways. It made the men connected with the industry more interested in their work, as they found themselves part of a living and progressive organization. It made gas salesmanship scientific in the fullest sense, and the public had it brought home to them that gas in its various applications could contribute in manifold ways to the amenities of life, the saving of labour, and the productivity of industry. As a proof of its activity in this last he might mention that gas was used in no less than 4,000 different branches of trade and industry, with resultant economy, increased convenience, and improved quality and quantity of output.

Mr. Milne Watson then referred to the war-work of the industry and of the Association, which was so great that the late Lord Moulton had said publicly that the industry saved the Empire in 1914 and 1915. He mentioned also the independent research work fostered by the Association, as, for instance, in the science of ventilation and of radiant heat. In the great problems of housing and smoke abatement the Association had succeeded in doing good work both for the country and for the industry. Both in its domestic and in its industrial uses gas was, in fact, essential to the national prosperity.

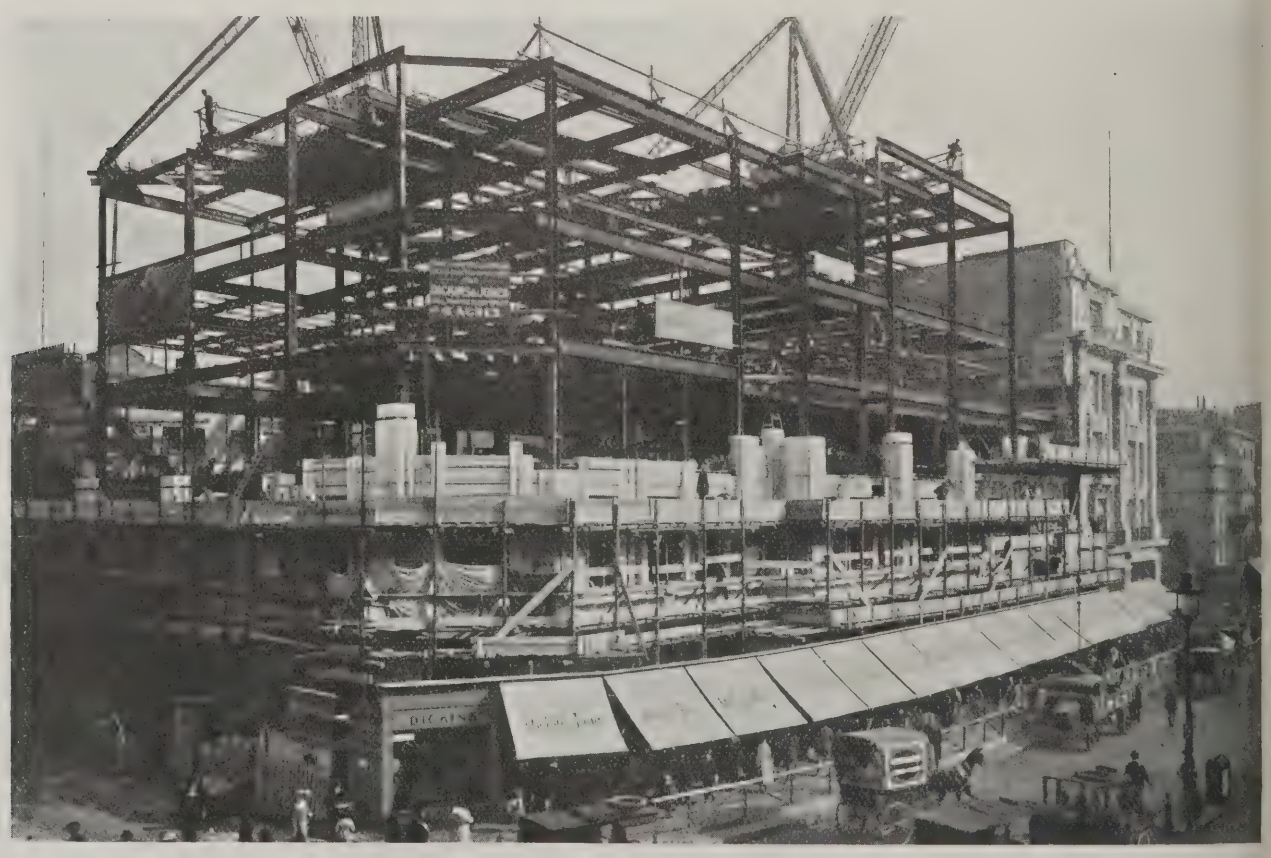
He referred briefly to the financial treatment accorded the industry during the war, when it was reduced to such extraordinary straits that advances were not even forthcoming from its bankers, and its dividends were reduced nearly to zero owing to forces entirely out of its own control. But he hailed the Gas Regulation Act as a new charter for the industry both financially and technically, freeing the industry as it did from obsolete and harmful limitations which c led to increased cost for gas.

Throughout all this period the l interests of the public, and therefore of industry also, had been mightily upl by the Association, for which he appe with confidence for continued support

Mr. John W. McLusky, A.M.I.M. engineer and manager of the City Glasgow Gas Department, in a pa dealt in considerable detail with hygienic qualities, or otherwise, of var forms of indoor artificial heating. explained the difference between rad heat and convected heat, and sho that the former, which was the s method, was the only natural and enti satisfactory way of heating hu bodies. Mr. McLusky compared the fire of to-day with that of fifteen or tw years ago, and showed what an enorm improvement in construction and de had taken place during that period.

In a paper on "A Thousand and One for Gas," Mr. Samuel Milne, engineer manager of the Aberdeen Corpora Gas Department, drew attention to increasing number and variety of in trial purposes for which gas is now u "It plays a part," he said, "in alr everything we touch in our every life—in the erection of our houses, in manufacture of the clothes and the b that we wear, in the food we eat, in articles of furniture, in the cutlery crockery upon our tables, and in the struction of our tramcars and of motor-cars."

The Dickins and Jones Building, Regent Street : Progress Photograph No. 8



Higgs & Hill, Ltd., Builders

The above photograph is published by courteous permission of the architects, Messrs. Henry Tanner, FF.R.I.B.A. During the month the steelwork has been completed, Messrs. Moreland, Hayne & Co. having fixed 1,455 tons in twelve weeks. The stone fronts have been raised one floor. Messrs. The Kleine Flooring Syndicate have executed 4,199 yards of flooring during the month, completing the fireproof flooring to the third floor.

Enquiries Answered

...eam Tint Wash for Rough Cast.

...P. writes: "In distempering an ...al rough-cast wall I wish to adopt ...ecification which includes the use ...e, tallow, and water, to give a dark ... tint. In what proportion are the ...lients mixed and how are they ...d? Can you also say what kinds ...e and tallow are used?"

...ime-wash can be made by taking ...ry quick lime, pouring on water ...llowing it to slack; Russian tallow, ...d, can then be added in the propor... of 1½ pints to the gallon. I do not ...ler this recipe, however, of much ...cal value. Boiled oil can take the ... of the tallow and give much better ...s. A pint to the gallon would be ...ent. Colour can be obtained by ...g yellow ochre and a little umber. ... better recipe and one which has ...d very successful is the following: ...10 parts of Portland cement and ... of yellow ochre with a little umber ...water to the consistency of cream. ...t part of concentrated glue in a glue ... the usual manner, and stir into the ...t wash. Add a little alum, say, ...aspoonful to the gallon. Stir ...ughly, and if necessary, strain. This ... being made principally of Portland ...t, it will be advisable to dampen ...rface to which it is to be applied. ...uld not be put on in very hot, dry ...er, or in the sun, because the mois... may be drawn out before the cement ...ime to set. I suggest that your ...pondent experiments with a small ...ity of this wash, when he will no ... find it to suit his purpose very well.

A.S.J.

...ling Central Heating Boilers for Oil Burning.

... writes: "Please tell me how the ...ing boilers may be adapted to burn ...el: (1) "Robin Hood Mona" sec... boiler, No. 6; inside dimensions of ...ox: length 30 in., width 18½ in., ...t 16 in.; heating surface, 33.47 sq. ...iel capacity, 5.14 cubic ft.; to heat ...t. 4-in. pipe and 1,020 sq. ft. of ...ion. (2) "Combination" domestic ..., No. 5; height 46 in., diameter ..., heats 120 gallons to 100 degrees in ...ur. (3) small saddle boiler, in cellar. ...Aquita" water heater, Set No. 1; ...ig power per hour: 68 gallons at ...legrees; capacity 25 gallons; total ...t 68 in.; B.T.U.'s per hour, 54,400."

...bably the best known burner ...able to existing boilers of practic... ...ny size and kind is the "Scarab," ... by the Scarab Oil Burning Co., ... 28 Charles Street, Haymarket, ...on, S.W.1, where a demonstration ...e had. Large numbers are already ...cessful use. The oil burned is that ...n as fuel oil, which may be described ... product from raw petroleum after ...irits and high-grade petroleum have ...distilled off or separated. The cost ..., ranging about 8s. 6d. per cwt. in ... but varying according to distance ...available source. It is freely obtain...

... regards cost of running, no tabu... ... figures are afforded, but a fairly ...idea may be obtained in this way. ...oil has a calorific value of about ...0 B.Th.U. per pound, costing, say, 1d.; good gas coke (the fuel otherwise used) has a calorific value of about 10,000 B.Th.U. per pound, costing, say, 0.3d. Reduced to even figures the oil is obtained at the rate of 17,500 B.Th.U. for one penny, the coke at 33,000 B.Th.U. for one penny. From these the coke would appear the cheaper, and certainly is, but it must be remembered that the coke may not have so high a percentage of its heat units transferred to the water as can be given by the oil flame, while against oil-heating there is the cost of the power required to afford the necessary air-blast.

With the oil-burner the oil is atomized by air-blast, for which there is needed a small air-compressor—say, ¼ horse-power—this being driven by an electric motor or whatever power is available. Burners have been made which can have the air-blast supplied by a cylinder with hand-pump, but even if practicable it is a plan that will not keep the apparatus running for more than two or three hours without re-pumping, which is of little use for large hot-water central-heating installations which require to be going at night as well as day.

Briefly the opinion is that fuel oil as a fuel for central-heating boilers costs rather more than coke, unless the handling of coke, ashes, and the labour of stoking represents an expense that oil will save.

Petroleum or paraffin could be used in place of fuel oil, but the cost would be approximately double.

FREDK. W. DYE.

A. and S.A.P.U. National Convention

The second national convention of delegates of the Architects' and Surveyors' Assistants' Professional Union has been held at Leicester, under the presidency of Mr. A. J. Penty. The following delegates were present: Messrs. W. J. Tayler (Sheffield), J. M. D. Henderson (Ayr and Scottish Divisional Council), John G. Marr (Aberdeen), James Reekie (Glasgow), J. R. Hallett (South Wales and Monmouth), Cecil H. Shaw (Leeds), Bernard Foster Stokes (Birmingham), A. Frank Beer (Exeter), Leslie Fairbairn (Newcastle-on-Tyne), James Grieve (Liverpool), Harry T. Howard (London), Chas. McLachlan and Tom Bertram (representing the Executive Council, Edinburgh and Scottish Divisional Council), John B. Hector (acting general secretary), G. Strachan (general treasurer), Miss Grace Thompson (assistant general secretary).

The report of the executive council for the year 1920–1921 was then considered and adopted. The general secretary, in moving the adoption of the report, referred to the business of the Union generally, and appealed for closer cohesion between the branches and the Executive Council in London. He said that by that means only could the Union hope to weather the storm of the present crisis in the professions, and to rise from it a healthier and stronger force. He also paid high tribute to the work of his predecessor, Mr. Chas. McLachlan; A.R.I.B.A., and held up his spirit of self-sacrifice, enthusiasm, and energy as an example to all who are, or who may be, the active workers in and supporters of the A.S.A.P.U.

The balance sheet for the year was also adopted, and the general treasurer, Mr. R. G. Strachan, P.A.S.I., referred to the finances of the Union and its present sound position.

The following gentlemen were elected to hold office during the ensuing year: Messrs. Arthur J. Penty, Lic.R.I.B.A., president; J. M. D. Henderson, A.R.I.BA. vice-president; R. E. Clarke, A. W. Sheppard, A.R.I.B.A., Harold Swan, P.A.S.I., trustees; R. G. Strachan, P.A.S.I., general treasurer; John B. Hector, M.S.A., acting general secretary; G. N. Hannan, P.A.S.I., organizing secretary; W. H. Hamlyn, A.R.I.B.A., G. B. Tubbs, A.R.I.B.A., assistant secretaries; G. F. Fox, C. H. Rattenberry, honorary auditors.

The following members of the Executive Council were also elected for the ensuing year: Messrs. Thomas Braddock, Robert F. Curling, P. W. Farmer, A. L. Flouti, William H. Hamlyn, John B. Hector, Harry T. Howard, Henry Hyams, R. J. Jones, Andrew Mather, C. F. Overy, Chas. Pickford, Lic.R.I.B.A., James Sherlicker, G. S. N. Stone, and G. B. Tubbs, A.R.I.B.A., P.A.S.I.

After Mr. Penty had delivered his presidential address the Convention instructed the Executive Council to take what action it might deem expedient to influence successfully the professional institutes to bring into operation some scheme whereby, to some reasonable extent, the influx of new blood into the profession might be regulated. An appeal was also made to all assistant architects and surveyors, and to those others professionally employed in the building industry, to give the Union their active support, "thereby assisting to dispel the apathy which has for so long blinded the vision of these workers to their own interests and to the best interests of their ancient calling."

The Convention discussed various domestic matters, including a lengthy consideration of the new rules of the Union and the amendments thereto put forward by the branches and the Union's legal adviser. Provision has been made in these rules whereby the controlling body has power to accept for membership as an affiliated association any association, or section of an association, exclusively comprising within its membership those engaged in occupations set out in the rules of the Union, and having for its objects the promotion of the interests of its members.

The Convention was of opinion that it was desirable that the Union should be a constituent body of the National Federation of Professional, Technical, Administrative, and Supervisory Workers, and instructed the Executive Council to enter into the necessary negotiations.

A resolution brought forward by the Manchester Branch to the effect that "The Union take the necessary steps to become federated immediately with the Building Trades Operatives" was negatived. The Convention decided to seek recognition for assistant civil engineers and surveyors from the Institution of Civil Engineers and Faculty of Surveyors of Scotland respectively, similar to that already obtained from the R.I.B.A., Surveyors' Institution and Society of Architects.

The Week's News

Westminster Vestry Hall.

Westminster City Council propose to rebuild the Vestry Hall, Piccadilly.

More Houses for Barry.

Barry Housing Society are about to begin the erection of 52 new houses at the Barry garden suburb.

More Marylebone Houses.

Houses are proposed to be built on the Fisherton estate by the Marylebone Council, at a cost of £30,000.

Knaresborough Housing.

The R.D.C. have received the approval of the Ministry of Health to a loan of £10,000 for housing.

Armagh's Extension Scheme.

Armagh County Council have decided to undertake a building scheme to increase the storage capacity of the water reservoir.

New Leicester Suburb.

A scheme has been launched by the Sutton trustees to erect 240 dwelling houses on a site abutting on Gipsy Lane. The City Council has approved of the expenditure of nearly £5,000 on drainage.

New Road for Manchester.

A sub-committee of the Manchester Town Planning Committee has discussed the question of a new road from Failsworth, through Moston, Chadderton, and Crompton, to Royton. Its object is to find work for the unemployed.

New Premises for Liberty's.

Messrs. Liberty and Co., Ltd., are to erect in place of their old premises, which form a portion of Nash's original Regent Street façade, a great new building from the designs prepared by Mr. Edwin T. Hall, F.R.I.B.A.

A Correction.

In our issue for September 28 we stated that Volume VII of Mr. Walter H. Godfrey's "Survey of London" (Chelsea, Part III), was published at 10s. 6d. This we are informed by the publishers, The London County Council, is incorrect. The price should have been given as 21s.

Architectural Partnership.

Mr. Alfred Saxon Snell, F.R.I.B.A., F.R.San.I., of 9 Bentinck Street, Manchester Square, London, W.1, has taken into partnership Mr. Rees Phillips, A.R.I.B.A., who has been associated with him for upwards of fifteen years. The partnership dates from July 1 last, and the practice will be carried on under the name of "Alfred Saxon Snell and Phillips."

The Great Northern Central Hospital.

A meeting on behalf of the Great Northern Central Hospital, Holloway, is to be held at the Mansion House on October 17, at 3 p.m., to provide an opportunity of making known more widely the value to the Metropolis particularly, and the Nation generally, of the institution's work, and in the hope that it may be a means of securing for the hospital the help which it needs so desperately at this critical time. If the hospital, which serves a large and densely populated area, with a million residents, is to continue without curtailing its work, it must have at least £22,000 before December 31, in addition to any income it can definitely expect to receive. It is to help in raising this sum that the meeting is to be held. An appeal is made for funds, no matter how small, so that an efficient hospital service in North London may continue.

Sir John Soane's Museum.

Sir John Soane's Museum, 13 Lincoln's Inn Fields, W.C., reopened on October 6. During this month the museum will be open free of charge on Thursdays and Fridays from 10.30 a.m. till 5 p.m., and during November on the same days from 10.30 a.m. to 4 p.m. The interesting art collection at the museum was described by the curator, Mr. Arthur T. Bolton, in a recent issue of this Journal.

Society of Architects.

The Council of the Society of Architects invite offers of or suggestions for papers on questions of professional interest for the forthcoming session. The invitation is not confined to members of the Society, and is extended to the members of allied arts, crafts, sciences, and industries. The meetings are held at 8 p.m. at the Society's Headquarters, 28 Bedford Square, W.C.1, on the second Thursday in the month.

New Road Subways.

Two big schemes planned to make for a much-needed improvement in London have been suggested by Mr. E. F. Spurrell, borough surveyor of Holborn, W.C. One is the provision of pipe subways under the main roads of the metropolis, and the other the building of a new road from Holborn, through Seven Dials, to Cambridge Circus, as a direct means of communication and traffic relief from the West Central to the South-Western Districts. The new road scheme has already been before the local authorities, but shelved in view of the cost, estimated at £5,500,000. The idea of the subways is to carry all the mains supplying water, gas, electricity, and hydraulic power so that repairs can be undertaken without the necessity of digging up the roads.

The Royal Academy Ateliers.

The *esquisse* for the first monthly competition for the new session of the Royal Academy Ateliers was held *en loge* in the new building provided at the headquarters of the Royal Academy, Burlington House, W.1, on October 8. In connection with this competition, by the kindness and generosity of Mr. H. Greville Montgomery, Director of the Building Exhibition, the Royal Academy Ateliers were able to offer numerous money prizes, one of fifty pounds, seven of twenty pounds, and one of ten pounds. The Royal Academy Ateliers are: The First Atelier of Architecture, the Architectural Association Atelier, the London University Atelier, M. Fernand Billery's Atelier, and the Liverpool University Atelier. Information as to the conditions of membership can be obtained from the Patron of any of these Ateliers, or from the Secretary of the Royal Academy Ateliers Council, The Royal Academy, W.1. Attention is further called to the fancy dress "Guy Fawkes" ball, which is being organized in aid of their funds by the First Atelier and the Architectural Association Atelier, and which will be held on November 4 at the Galleries of the Royal Institute of British Architects. Tickets 15s. each, and Students' Tickets, 10s. 6d. each, may be obtained from Hon. Secretary of the Dance Comm Captain M. G. Kiddy, 296 Vau Bridge Road, S.W.1. (Telephone: toria 2112).

Whitehall's Dear Bricks.

A special memorandum submitte the Hammersmith Council Housing mittee states that the Ministry of H charges 10s. per thousand more for b than they can be bought for in the market. The Committee have in contracts covering 551 houses, and vision was made for ordering, wher possible, materials from a departme the Ministry of Health. One firm of tractors intimated that they would approximately 7,000,000 bricks. question of the price was pointed o the Ministry, who replied that "the mitments of the Government for b must be considered before purchases i open market. Any financial arrange necessary would be facilitated in the settlement of accounts. As no sati tion could be obtained from the Go ment on the point," concludes the m randum, "the contractors were ord to purchase bricks at the lowest pos rate in the open market."

Competition News

Wandsworth Park.

The following awards have been n in the competition for the laying o part of the Watney Estate for the Wa worth Borough Council: First, Mr. T Somerford, A.R.I.B.A., 131 Re Street, W.1.; Second, Messrs. Bridg and Eggins, 24 Applegarth Road, W.

Hastings Music Pavilion.

Music pavilion. Premiums, £ £100, and £50. Apply Mr. D. W. Jack Town Clerk. Deposit one guinea. fessor S. D. Adshead, assessor. Clo date November 30.

Southend Pier Pavilion.

Renovation and improvement an conditioning of the Pier Pavilion, construction of enclosure or colon connecting the Pier Entrance with Pavilion. Total cost not to ex £25,000. Premiums 75 and 25 guin Apply Mr. R. H. Dyer, Borough Engi Municipal Buildings, Southend-on- Closing date November 30.

Kirkcaldy War Memorial.

War Memorial, Balsusney H Grounds. Cost not to exceed £4, Apply Burgh Surveyor, Kirkcaldy. ing date October 31.

Other Competitions Open.

For list of other competitions op "Daily Mail," Labour Saving Ho Auckland War Memorial, and Harro War Memorial—see our issue for Sept ber 28, page 391.

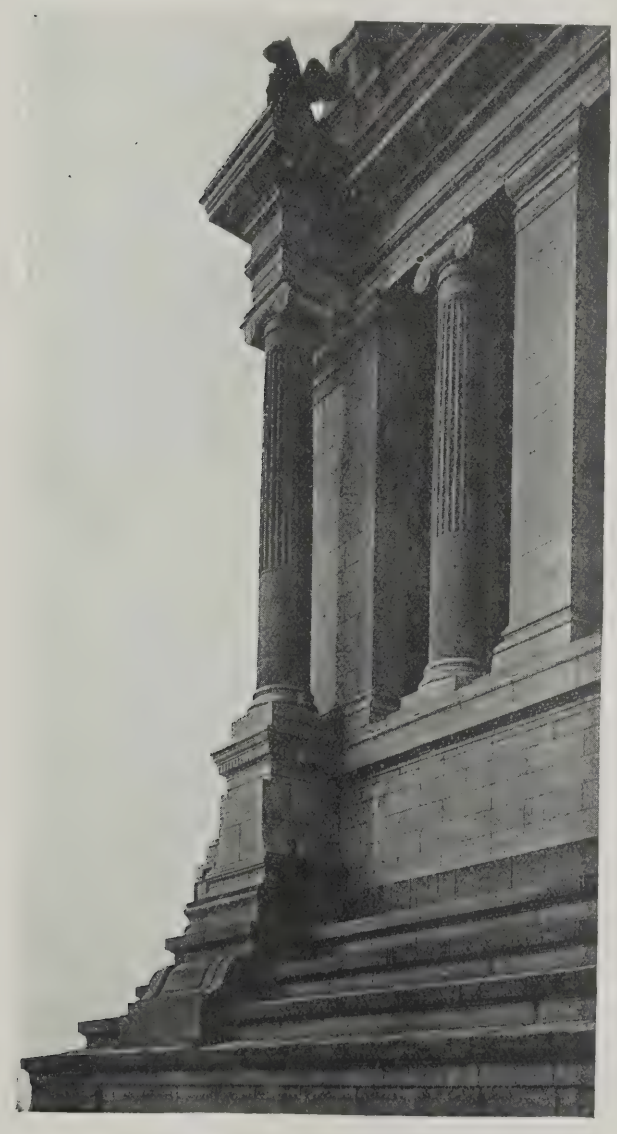
Auckland War Memorial Competi

The conditions of this competition h now been amended to meet the v of the R.I.B.A. Competitions Commi and the New Zealand Institute of A tects, and members of the Royal Insti are accordingly at liberty to take pa the competition. The date for sen in drawings has been extended to 1922. A few copies of the conditions available for reference in the R.I. library.

nesday, October 19, 1921. Vol. LIV. No. 1398

THE ARCHITECTS' JOURNAL & Architectural Engineer

With which is incorporated "The Builders' Journal"



A DETAIL OF THE PALAIS DE JUSTICE, BRUSSELS.
POELAERT, ARCHITECT

27-29 Tothill Street, Westminster, S.W.1.

French Renaissance Architecture. 3.—The Hôtel des Monnaies: Vestibule to the Ante-Chamber of the Grand Salon

J. D. Antoine, Architect



The Hôtel des Monnaies, built during 1771–75, is one of the finest examples of architecture produced during the Louis Seize period. The best-known architects of the day took part in the competition for the building, which, however, was won by a contractor, Jacques Denis Antoine, who was the son of a joiner. It is not generally known that Sir William Chambers made a special visit to Paris to study this building. Compare the detail with that of Somerset House.

THE
ARCHITECTS' JOURNAL
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dnesday, October 19, 1921 Volume LIV. No. 1398

Notes and Comments

"The Coal-smoke Cure"

THAT architects have a very definite interest in the abolition of coal-smoke is undoubted. While undoubtedly the argument from hygiene is unanswerable, and is the strongest of all reasons for ishing coal-smoke, the æsthetic objection to the nuisance fficiently cogent in itself to warrant vehement and united est by architects. Mr. Ernest Newton, R.A., in a powerful le printed in "The Glasgow Herald," enforces the build- oint of view in a few compact phrases: "It is impos-," he says, "to exaggerate the devastating damage ed to buildings by smoke and soot. Not only do stone brick decay, but all colour and play of light and shade kly disappear. In a manufacturing town especially, a building, no matter how pleasantly designed, soon shares fate of its neighbours, and becomes a black, unlovely ." As to the hygienic and economic objections to coal- e he quotes such eminent authorities as Professor ard Hill and Dr. Saleeby, whose testimony is cogent as lusive. Professor Hill says that ninety to ninety-five per of the energy of coal is worse than wasted on blacken- ur cities and hiding the sky; the many valuable by- ucts that could be extracted being entirely lost; while aleeby declares that "the coal-smoke curse" is largely nsible for pneumonia and other respiratory diseases— claration that is corroborated in the interim report of Committee of the Ministry of Health on Smoke and ous Vapours Abatement, in which the categorical ment is made: "We are satisfied that domestic smoke, h is produced by the burning of raw coal, causes serious er to health and damage to property." Pittsburg, h, as an extraordinarily busy manufacturing town, was erly a gross offender, has reduced its smoke production ite respectable limits; and Mr. Newton says that in in we should not only follow this manufacturers' ple, but should economise our coal and keep our cities spherically pure and our buildings clean by the sub- ion of gas fires for raw-coal fires. Coal-smoke, he res, being a dangerous and quite unnecessary scourge, d be not only abated but abolished.

American Registration

e Americans, like the South Africans, are in advance with Registration. Several States already have it in and now the Registration Committee of the American ute of Architects have prepared a model form of ration law for general adoption. This model will be y studied by British architects, who will be glad to t reproduced in full on a later page of the present of the Journal. Although American practice differs derably in detail from British practice, there are many s of agreement between the two, and there is no l distinction of principles. No person shall be allowed sume the title of architect without first obtaining a cate of competency from a Registration Board, which comprise architects only; engineers, and members of professions, being expressly excluded. Many valuable may be derived from this American scheme. Specially notable are the strong debating points that in the interests of the public and of good architecture the standards of education should be raised from time to time; and that a registration law should prove beneficial to the general practice of architecture, registration being a direct incentive to closer study and higher training. It is notable that there is a pronounced effort to maintain a friendly attitude towards the engineers, without, however, amalgamating with them.

Royalty Sounds the Advance

A word in season, how good it is!—especially when there is strenuous action behind it. Both the King and the Prince of Wales have in an extraordinarily high degree the gift of saying the right thing at the right time and in the the right place. At Manchester, on October 8, the King's speech at the opening of the Great Hall of the Royal Exchange will be long remembered for its cheery words of courage and hope. Rich in both these qualities was also the Prince of Wales's graceful and sympathetic appeal on behalf of his "old comrades, the ex-Service men," so many of whom are now unemployed through no fault of their own. In the midst of preparations for his tour in India, the Prince put himself to serious inconvenience in taking the chair at the Mansion House meeting last Wednesday afternoon, but it is certain that the effect of the eloquent speech he then made will magnificently justify the endeavour. It was a remarkably practical as well as a singularly eloquent speech; but, above all, it will be esteemed for the touching terms in which he referred to unemployment. While the main objects of the British Empire Exhibition call, the Prince said, for the highest ideals and the most earnest endeavour, "it is fairly easy to have ideals when one is not in want oneself, but it is very hard to have ideals when one is out of work and consequently hungry—and probably hungry for a long time. It is still harder when, besides being hungry oneself, those who are near and dear to us are also hungry. The terrible problem of unemployment which is facing us at the present moment is the real reason why we are gathered here from all parts of the United Kingdom, and the Empire as well, and the real reason why I was so very keen to preside myself." There spoke a Prince who loves his people. He spoke, too, like a man of business: "I have a practical suggestion to make. Here on the one hand you have thousands of able-bodied men who offered all for their country in the Great War. On the other hand you have this great enterprise, which, I hope, I have proved to you is solely in the interests of the future of our Empire. Why delay with the work?" Why, indeed? And there is a further practical lesson to be deduced from the Prince's phrase, "Why delay with the work?" The question applies with full force to every other kind of work, besides that of building a great exhibition which shall show the world what the British Empire can produce. In prospect of this exhibition it is mere prudence to build up, to extend, to repair, and to put into trim the numerous factories that must immediately prepare for this Empire display of commodities. An immediate building boom, therefore, should follow the Prince's stirring words. The Prince has sounded the general advance, and

those who are sluggish in preparing for action will presently find that most of the available force is concentrated on the Imperial Exhibition. Better set to work at once with the men who are unemployed. Very soon employers will be competing for their services.

Public Ignorance of Buildings

How Decimus Burton's wraith must writhe! Here is no less knowledgeable a person than a London taxi-cab driver who does not know where the Athenæum is. Mr. Justice McCardie was so thoroughly scandalized at the monstrous fact that he related it in open court. Another taxi-driver was giving evidence on a different matter, and his lordship intervened with an anecdote that, while it seemed at first to be of purely personal interest, is really relevant to public affairs, and exhibits once again the lamentable ignorance of the public about architects and buildings. Last week we quoted some desolating instances of the crude ignorance of the miscellaneous crowd concerning the architecture of some of the most prominent buildings in Stockport. A taxi-driver in London might have been expected to pass triumphantly a much less exacting test. His lordship said to the witness: "You are the very man I want to see. How long did it take you to pass the 'knowledge-of-London' test?" Witness replied that it took him five months, studying innumerable maps, and being driven over the main and subsidiary routes, the greater part of the time being spent in being driven about and looking at important buildings. His lordship: "Looking at important buildings—that is exactly what I wanted to know. Yet the other night, when I wanted to go to the Athenæum Club, the driver did not know where it was." If he really did not—but taxi-drivers become densely ignorant of the situation and appearance of places to which they do not want to go—there are three powerful but melancholy reasons that might be urged in excuse for his ignorance: (1) He may know it as the "Atheenum"—a pronunciation one has often heard—and may not have recognized the correct name; (2) the London Clubs are not labelled, but ought to be; and (3) "looking at important buildings" is not very informative to those who have not been taught the right way to do it. Driving about London constantly should be a liberal education in architecture, but we wonder how many taxi-drivers could distinguish between a pilaster and a pediment.

The Architect's Newer Opportunities

The continuous sale of great estates is changing the face of our country. Scotland has not escaped the epidemic. Wages, and Government and municipal exactions are such heavy charges that estate-owners are unable, as well as unwilling, to incur them. This inability is specially marked where its consequences are most deplorable—that is to say, on great historical estates that have been identified, perhaps for centuries, with families that are compelled by financial stress to part with them. This is quite an open secret; many estate-owners, including several owners of historical town-houses, have confessed that, owing to the impoverishing effects of the war, they have been obliged to relinquish some of their most cherished unentailed possessions in houses, lands, and heirlooms. In many instances the land is divided into small parcels, and consequently the great house on it becomes obsolete, giving place, probably, to several smaller houses. If, being of architectural or historical importance, it is allowed to stand, the best thing that is likely to happen to it is its conversion to some laudable public service, as library, art gallery, concert hall. A very useful, if not exactly dignified, function is fulfilled by the house known as "the Ranger's Lodge" in Greenwich Park. Once the residence of royalty and nobility—Lord Wolseley was its last tenant—it is now a refreshment-house. It is a pity that the refreshments are nearly all of the material kind. In democratizing in some such way an historical building, care should be taken to preserve its decorative features, so that they may be enjoyed, not, as they were originally, by the possessors and their friends, but by the humbler class of visitor, who will gather from them so element of education and refinement. But, after all, moral that the architect should lay to heart is that on wh Canon Alexander insisted in his sermon at St. Paul's other day: "The richer classes of the country," he s "whose ancient heritage was slipping from them, would well if they would adapt their standards to their chang fortunes." They will because they must; and the archi will build them smaller and yet more beautiful homes, guide them in the choice of furniture and adornments t shall be less vulgar and less costly than of old. In particular branch of construction, the architect has important mission to fulfil—that of purifying taste in teriors, as well as in general design.

The Huts in the Parks

There seems to be unnecessary delay in demolishing huts in the parks. Mr. William Woodward, F.R.I.B makes, in a letter to "The Times," the very useful sug tion that the work of removal should be at once begu the interests of the unemployed. Lord Crawford, the H Commissioner of Works, proposes to begin the demolit next March, but why not set about it at once, giving unemployed immediate work on demolition, relea valuable materials for use on housing, and freeing the for reinstatement by further relays of workmen? doubt there are difficulties in the way, but these are an astute administration to overcome, and the effort sh not make much of an overdraft on tact and diplomacy

The Church House Scheme

Neither courage nor funds should fail the Church i scheme for a new building at Westminster. Compared other institutions, lay and clerical, the Church of Engl is badly off for central administrative buildings. La organizations and working-class "friendly" soci already have large buildings in London and the provin and the printers talk of a college of university stand The Wesleyan Central Hall, which mixes sacred with sec functions in a manner that the Church is not likely to imi is renowned throughout the world as a monumental buil of colossal size and impressive design—the work of a tects of genius. Shall not the Church have headqua that shall faithfully reflect her position in the commun The committee that has been formed to review the sch seems to be tied down by its terms of reference to a sideration of the Dean's Yard and Tufton Street Location in Westminster doubtless offers many advanta but the possibility of securing other very fine sites sh be considered. Ken Wood, Holland House, and Lam Palace grounds seem well adapted to such a purpose, doubtless there are, in these days of the wholesale aban ment of great estates, many other suitable sites on w a noble building would be appropriately placed. Church ought to build, and to build well, rather to creep like into some discarded shell.

When Woman Builds

Women's views on house-building have been very f expressed of late. They are always welcome, even th they are not always wise; for it is very useful to know lady's opinion in such matters, even when it be pr terous, for in that contingency it can be the more e countered for being familiar. Very often, however, lady's advice is of real practical value. Architects esteem this for instance. It is from an article in Times," and is stated to represent "The Woman's V on building a house: "You must be prepared for the ad criticism of friends. Don't take them into your confi in the early stages—laid out upon the open ground foundations of your house look so pitifully small mean—and, unless they have knowledge and can be o use to you, don't let them even see your plans. They either worry you with criticisms and impossible su tions, or else, to put it plainly, they will be bored."

chitect will not mind his client's friends being bored. hat annoys him is their unwarrantable interference with s designs; they do it, of course, through the client, whose ace of mind they disturb, and whose confidence and faith the architect they destroy, and, of course, the client sses on the worry to the architect. "Save me from my ends!" is really less a poignant saying than "Save me m my client's wife's friends." That this important fact s been so clearly recognized and so fearlessly exposed by ady may serve the architect a good turn.

Versailles Palace Repairs

Floors that are worn out by the feet of pilgrims testify st eloquently to the popularity of the shrine. At nterbury, for instance, stone steps have lost inches of their original surface, and the custodians of the Cathedral are proud of the fact. At the Palace of Versailles some of the parquet flooring has been worn into holes by the footsteps of thousands of visitors, mainly American soldiers, who during the past two years have frequented the galleries and some of the rooms in the palace. Some of these soldiers were wealthy; they have here an excellent opportunity to perform a graceful act of reparation, for they will not dream that Parisians could wish to preserve the broken parquet flooring as a memento of American esteem for the historical palace! American plutocrats might go even further, for the palace, it is stated, is greatly in need of thorough repair, but Americans need not be reminded that any request to be allowed to share in the expense of the work would have to be made with the most delicate tact, or international relations might be endangered!

low to Revive Public Confidence in Building

By C. H. B. QUENNELL, F.R.I.B.A.

MR. E. J. HILL'S letter, under the above heading, in the Journal for September 28, should prove helpful if it leads to a discussion of our troubles; but the discussion must be frank, and etences torn aside.

The building trade finds itself in a bad way; there is ork to be done, and yet we cannot do it. People are not ilding the houses which are required so badly; education hampered for lack of schools; and industry needs new ctories.

Perhaps the first of the tremendous mistakes we have ade was to suppose that the war would be a short cut to e millennium. There was to be an Augustan Era, when ie buildings would spring up alongside the Homes for eroes. This point of view entirely neglected the mind of e nation; and the community, like the individual, is ry dependent on the state of mind in which it finds itself. The war started with a splendid idealism, but finished th a riot of profiteering, which dulled the moral consciousss of the nation. If the present times seem out of joint, e must bear in mind that between 1914 and 1918 the vilized nations of Europe were engaged in tearing themlves to pieces. The young men were sacrificed to the speakable tortures of the trenches. There they picked e off one another; were poisoned by gas; scorched by me-throwers, and ground into dust by tanks.

In time the spirit of sacrifice so shown will bear fruit, and ter generations may benefit; but the question arises: Why ould we think that we have earned a good time?

The young men came back and found a new institution; idea that the manufacturer was entitled to Excess Profits, rned while their side of the deal was a shilling a day and gamble with Death. It was an entirely new state of fairs. In the Middle Ages, Canon Law concerned itself th what constituted a Just Price; it was left to the twenth century to legalize an unjust interest as Excess Profits. hat this was done is a sufficient indication of the frame of ind of the legislators. Can we wonder, then, if the young en are discouraged, and the old men discredited? Are e squealing now because, being ill, we desire to enter a onastery and lead the blameless life? Or should we, on a storation to health, go back to the good old days of 14–18, and Excess Profits?

Mr. E. J. Hill thinks that if a "few architects, surveyors, d builders get together much good would result," but the ouble is too deep to be cured by words; deeds will be quired before we can regain this lost confidence. It is t so much a question of the public having lost confidence the building trade, as the community at large doubting e fairness and equity of modern conditions of life. People e not satisfied or content.

Let me recount a building experience of my own, because ounce of experience is worth a pound of theory. In January 1920 it occurred to me to build a house for my family; we needed shelter, and it seemed to be a good thing to do. To start with, we could not obtain any estimates, but with touching confidence jumped out into the void of uncertainty as to cost. The house was designed on Noah's Ark lines; the plan a simple oblong. The cube, about 22,500 ft., at a pre-war cost of 8d. a ft. would have totalled up to £750; and the house is not worth more.

During building operations labour costs advanced, I think, 30 per cent., and everything else soared in about the same relation. I gradually formed the opinion that nearly everybody I met in connection with the building was "on the make." I remember trying to buy a gas stove, the price of which was provisionally quoted at £19 19s., but that was not the real price. The real price was to be that ruling at the date of delivery, and that could not be guaranteed. One formed the opinion that prices were not real prices at all, but the utmost limit of extortion possible to rings trading on the scarcity of commodities. It was not legitimate business, but a ramp or gamble. So the miserable business went on, and costs climbed up, until my £750 house reached the ridiculous total of well over £2,000.

I finished my own building operations with a settled conviction that under no circumstances could I recommend a client to go and do likewise.

The point need not be laboured, because my experience is a fair example of how the building trade has dealt with the Government, or any individual who has wanted to build of late.

I would summarize my conclusions thus:—

(1) We must not expect the millennium as a result of the war, but rather a period of great poverty, in which the maximum effort and the greatest amount of service will have to be rendered for the minimum reward. Only in this way can we play our part in building up a shattered world.

(2) We must get back to the old-fashioned idea of doing your duty by your client, and giving him value for money. The number of lunatics at large who will pay £2,000 for a £750 house is small.

(3) We must be prepared to give firm prices, and fair prices, because until we can do so the public cannot plan ahead, estimate rental values, and see the return on their money.

(4) We must combine to see that the manufacturer does not form rings and manipulate prices, and make "Excess Profits"; and eliminate parasitic middlemen wherever possible.

(5) We must try to restore the lost standard of quality in building; work has been deplorably bad of late.

(6) We must re-start building and leave off swindling.

Finally, we need not worry about educating the public, because the public at the moment is engaged in educating us.

A Model Form of Law for the Registratio of Architects

THE Committee on Registration Laws of the American Institute of Architects have prepared the following model form of Law in connection with the registration of architects: The 52nd Annual Convention of the American Institute of Architects recommended that each Chapter shall take an active interest in the regulation by State legislation of the practice of architecture. The Chapters are urged to act with a view to securing the enactment of legislation or the revision of laws already enacted, in order,

First, to place the profession upon the best possible plane of educational and technical qualifications and,

Second, in order to obtain a desirable uniformity in State registration laws.

The notes are appended to the sections to which they apply as explanatory of the theories on which the law is based, and to assist the Chapters in the drafting of laws which will properly satisfy local conditions. Attention is called especially to the note following section No. 22.

It is essential that a lawyer familiar with the laws of the State in which the law is to be enacted should study the bill after it has been formulated and before it goes to the legislature. The model law follows:

A Bill for an Act.—To define the qualifications for the practice of architecture in the State of.....and to provide for the examination and registration of architects. Sections 1 to 14 deal with the constitution and duties of the Registration Board in regard to which the American Institute of Architects has the following note:—

(Note.—It is obvious the work and policies of the Board should be continuous and that they cannot be if the entire membership changes at intervals.

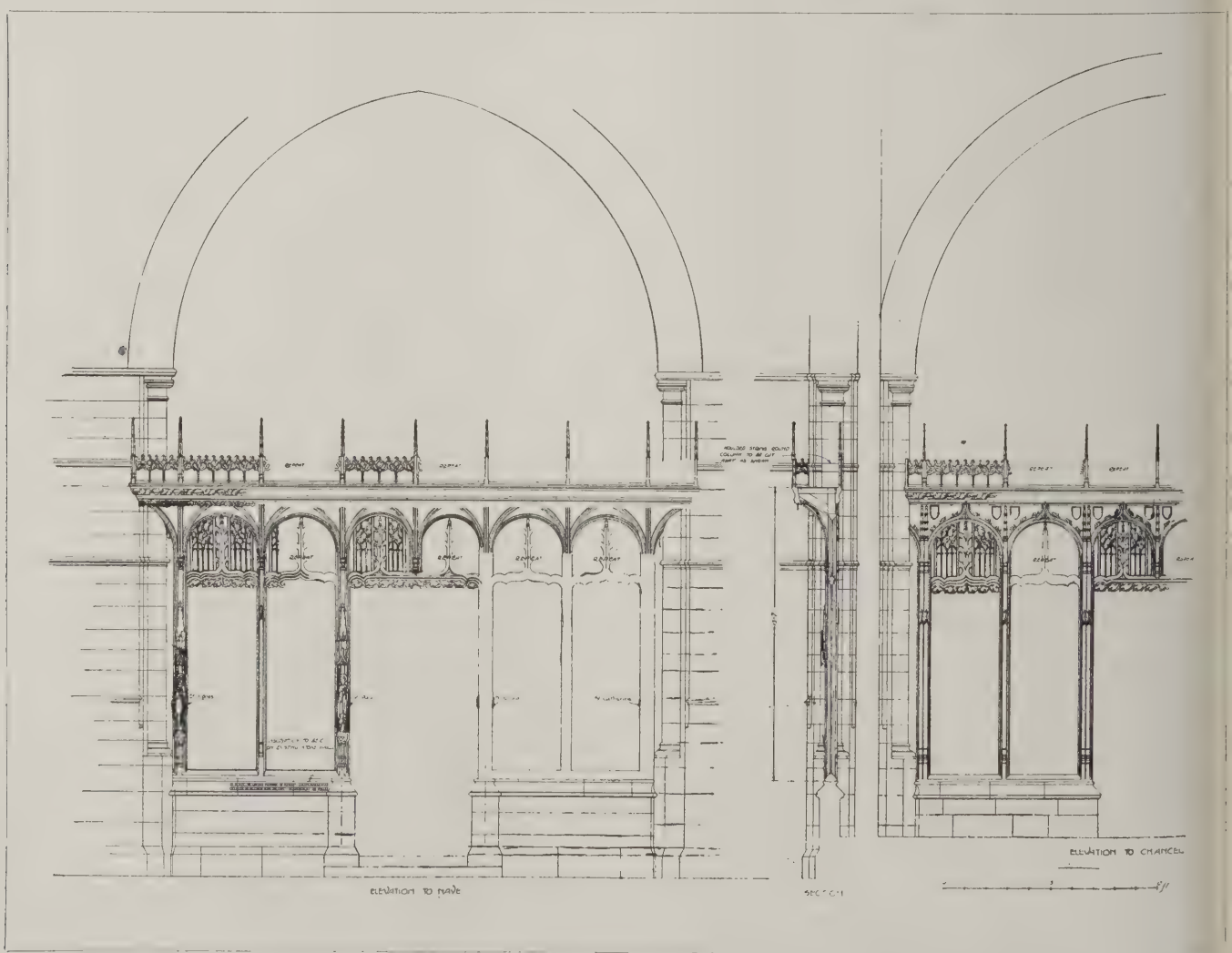
Registration of architects should not be placed in the hands of a Board made up of men of other professions, for it would not be fitted to examine and pass upon the qualifications of architects.

A joint registration law for architects and engineers is undesirable in that the registration of architects might be thrown entirely into the hands of engineers, notwithstanding that the Board may be made up entirely of the very best engineers in the profession. Such a Board would not be competent to examine and pass upon the qualifications of architects, for the reason that the architectural members of a joint Board might be in the minority. A combination Board is objectionable even if architects are in the majority. Engineers, if they w registration, should secure it by separ legislation which would permit them practise as "engineers" without any in ference from an Architect's Registrat Law.)

Section 15.—Any person residing in having a place of business in the State wishing to practise architecture in State, who, before this Act goes into eff shall not have been engaged in the pr tice of architecture in the State under title of architect, shall, before be entitled to be or known as an archit secure from such Board a certificate qualifications to practise under the t of architect, as provided by this Act.

(Note.—The theory of the regulat of the practice of architecture which Institute has adopted is that no one be admitted to practise as an archit without first establishing his qualifi tions and receiving a certificate iss according to the law. Everyone entit to practise by virtue of having been practice when the law was enacted sho be required to establish that fact affidavit. But he should not be grante certificate unless he proves competenc

Section 16.—Any person having certificate pursuant to the requireme



OAK CHANCEL SCREEN IN ST. FAITH'S CHURCH, WATERLOO, LIVERPOOL. G. GILBERT SCOTT, A.R.A., F.R.I.B.A., ARCHITECT.

Modern Ecclesiastical Architecture. 15.—Memorial Screen in St. Faith's Church, Waterloo, Liverpool

G. Gilbert Scott, A.R.A., F.R.I.B.A., Architect



This memorial screen, which is of oak, has been erected to a soldier killed in the war. The stone wall, the steps, and the gate all existed as part of the church, and the screen therefore had to be fitted in with these. It was finished early this year.

Act may be styled or known as an
ct or registered architect.
on 17.—No person presumed to
he right to secure such certificate
e of his or her use of the title archi-
ior to the time this Act goes into
shall assume any title indicating
or she is an architect, or any words
or figures to indicate that the per-
ng them is an architect, unless he
shall have qualified and obtained
ficate of registration as an archi-
unless he shall have filed an affi-
stablishing the fact that he was in
e as an architect previous to the
e of this Act, and has a legal right
tise without a certificate.
e.—As a result of permitting archi-
ho were in bona-fide practice at the
he law was enacted, to continue
ractice without registration, the
will soon learn to draw a line
n registered and non-registered
cts so that registration becomes a
le asset to an architect.)
see note following Sections 15 and

on 18.—Nothing contained in this
ll prevent the draftsmen, students,
of - work, superintendents and
mployees of those lawfully prac-
as registered architects under the
ons of this Act, from acting under
truction, control or supervision of
nployers, or to prevent the employ-
f superintendents of the construc-
nlargement or alteration of build-
r any appurtenance thereto, or
t such superintendents from acting
he immediate personal supervision
registered architect by whom the
nd specifications of any such build-
largement or alteration were pre-
Nor shall anything contained in
t prevent persons, mechanics or
s from making plans, specifications
supervising the erection, enlarge-
r alteration of buildings or any
enance thereto to be constructed
mselves of their own employees,
d that the working drawings for
onstruction are signed by the
thereof with their true appella-
"engineer," or "contractor," or
nter," or etc., without the use in any
the title "architect."

itectural Practice Defined

on 19.—Any one or any combina-
the following practices by a person
nstitute the practice of architec-
amely: The planning or super-
of the erection, enlargement or
on of any building or buildings
ny appurtenance thereto, to be
cted for others or by persons other
mself. A building is any structure
ng of foundations, floors, walls,
s, girders, and roof, or a combina-
any number of these parts, with
out other parts or appurtenances.
: This paragraph requires careful
It is unnecessary and unwise to
t to define the practice of architec-
to insert a definition of a building.)
on 20.—Qualifications, Examina-
ees: Any properly qualified per-
shall have been lawfully engaged
practice of architecture in the
t the time this Act takes effect,
granted a certificate of registra-
thout examination, by payment
Board of fee for certificate of regis-
as prescribed in Section 26 of this Act, on condition that the applicant satisfies the Board of Examiners that he is qualified to practise architecture.

Section 21.—Any citizen of the United States or any person who has declared his (or her) intention of becoming such citizen, being at least 21 years of age and of good moral character, may apply for a certificate of registration or for such examination as shall be requisite for such certification under this Act; but before receiving such certificate this applicant shall submit satisfactory evidence of having completed the course in a high school or the equivalent thereof, as may be approved by the American Institute of Architects, and of having subsequently thereto completed such courses in mathematics, history and languages as may be prescribed by the Board of Examiners and Registration of Architects. The examination for the above academic requirements shall be held by the Board. In lieu of such examination the Board may accept satisfactory diplomas or certificates from Institutions approved by the Board, covering the course or subject-matter prescribed for examination.

Necessary Qualifications

Section 22.—Upon complying with the above requirements, the applicant shall satisfactorily pass an examination in such technical and professional subjects as shall be prescribed by the Board of Examiners and Registration of Architects. The Board may, in lieu of examination, accept satisfactory evidence of any one of the qualifications set forth under subdivisions (a) and (b) of this section.

(a) A diploma of graduation or satisfactory certificate from an architectural college or school that he or she has completed a technical course approved by the American Institute of Architects, together with and subsequent thereto of at least three years' satisfactory experience in the office or offices of a reputable architect or architects.

The Board may require applicants under this subdivision to furnish satisfactory evidence of knowledge of professional practice.

(b) Registration or certification as an architect in another State or country, where the qualifications prescribed at the time of such registration or certification were equal to those prescribed in this State at date of application.

(Note: If these laws are to have any material value, it is important that registration be based on a high standard of education, and that registered architects be competent.

The principal object of the Law is to give the Board of Examiners power to be certain that every man who uses the title of "architect" is well qualified.

The standard of technical education for architects approved by the American Institute of Architects is the only one which might be looked to as binding upon all States, and there is no duty which the Institute has to perform which is more important in fixing and improving the standard of education of the architectural profession. Such standards will change from time to time, and the widest kind of flexibility embodied in a statute will be the most desirable. Any absolute standard, even the most advanced, would soon become obsolete.

If in time all States will, in their registration laws, refer to the educational standards of the Institute, it will be a means of arriving at a uniformity most desirable to pave the way for a reciprocal recognition in each State of registration in other States.

In the interests of the greatest public benefit and of good architecture, the standards of education should be raised from time to time.

A registration law should prove beneficial to the general practice of architecture. It should not be designed to bring about any immediate personal benefits. One evidence of the good effect of registration laws in States in which they are in force is that they are providing a strong incentive to would-be architects to secure a regular architectural course in a college whose diploma will ensure their receiving registration under the law. That incentive leads them to qualify themselves by study and experience in an architect's office to an extent which they had not before realized to be necessary before they begin independent practice.

A person who is in bona-fide practice and has used the title "architect" before the law went into effect should be allowed to continue his practice without interference. The law should not permit him to demand a certificate without proof of his competency.

Contractors, engineers, or owners should not be forbidden by a registration law to receive building permits so long as the local or State Building Ordinances are sufficiently rigid to assure that proper drawings are filed. The law should not interfere with the proper right of people other than architects who are really qualified to file drawings, whether made by themselves or not, to do so.

Engineers and Contractors.

There are many structures which an engineer can properly care for without the assistance of an architect, and there are many cases of small structures, drawings for which can be made by the contractor. We should rely on this attitude to enable us to co-operate on a friendly basis with the engineering profession and with contractors, who will ultimately concede the moral right of the architect to take care of all work within his province, provided the architect maintains high standards of qualifications.

Great importance is attached to this view of the matter, inasmuch as it is based on the unsatisfactory experience of the profession in two or more of the States.)

Section 23.—An architect who has lawfully practised architecture for a period of more than ten years outside this State shall, except as otherwise provided in subdivision (b) of Section 22, be required to take only a practical examination, the nature of which shall be prescribed by the Board of Examiners and Registration of Architects.

(Note.—It is considered desirable to have a renewal fee, however small, to assist the Board in maintaining a correct list of registered architects and to supply the profession and the public with such lists; it would be better to reduce the fees for the examination and registration than it would be to omit the renewal requirement.)

Section 24.—An architeet seeking to practise architecture in this State, who is a citizen of a foreign country and who has lawfully practised architecture in such foreign country for a period of more than

ten years, shall, except as prescribed in sub-division (b) of Section 22, be required to take a practical examination, the nature of which shall be prescribed by the Board of Examiners and Registration of Architects; or, if such applicant shall have been engaged in practice for a period of less than ten years, he shall, except as prescribed in sub-division (b) of Section 22, be required to take academic, technical, and practical examination, but in any case such applicant shall file with the Board a bond in the sum of five hundred dollars, and such bond and the certificate shall remain in force for a period of three years, unless revoked for cause within such period, and shall then terminate unless a renewal be granted by the Board at its discretion.

Section 25.—The fee to be paid to the Board by an applicant for an examination to determine his fitness to receive a certificate of registration as a registered architect shall be ten dollars ($10).

The fee to be paid to the Board by an applicant for a certificate of registration as a registered architect shall be five dollars ($5).

The fee to be paid to the Board for the restoration of an expired certificate of registration shall be five dollars ($5).

The fee to be paid to the Board upon renewal of a certificate of registration shall be one dollar ($1).

The fee to be paid to the Board by an applicant for a certificate of registration, who is an architect registered or licensed under the laws of another State or Territory of the United States, or of a foreign country or province, under sub-division (b) of Section 22 or under Section 23, or under Section 24, of this Act, shall be fifteen dollars ($15).

Section 26: Certificates.—Filing, recording, and renewal of all examination papers and other evidences of qualification submitted by each applicant shall be filed with the Board of Examiners and Registration of Architects, and said Board shall keep a record, open to public inspection, at all reasonable times, of its proceedings relating to the issuance, refusal, suspension and revocation of certificates of registration.

This record shall also contain the name, known place of business and residence, and the date and number of the certificate of registration of every registered architect entitled to practise his profession in the State of .....

Every person granted such certificate shall have the same recorded with the county clerk of the county in which his principal office for the practice of architecture is located.

(Note.—The recording of the certificate with the county clerk of the county in which the architect's office is located should be sufficient. A requirement to record the certificate in each county in which work is performed by the architect is cumbersome and an unnecessary expense and labour.

The affixing of a seal of a registered architect to plans and specifications as required by the laws of some States appears to be an unnecessary and burdensome requirement.)

Section 27.—Every registered architect in this State who desires to continue the practice of his profession shall, annually during the month of July, renew his certificate of registration, and pay to the Board the renewal fee required by Section 25, lines 12, 13, and 14, of this Act.

A person who fails to renew his certificate of registration during the month of July in each year may not, thereafter, renew his certificate except upon payment of the fee required by Section 25, lines 9, 10, and 11, of this Act.

Every renewal certificate shall expire on June 30 following its issuance.

Section 28: Revocation of Certificates.—The Board of Examiners and Registration of Architects may revoke any certificate after 30 days' notice with grant of hearing to the holder thereof, if proof satisfactory to the Board be presented in the following cases:—

(a) In case it is shown that the certificate was obtained through fraud or misrepresentation.

(b) In case the holder of the certificate has been found guilty by such Board or by a court of justice of any fraud or deceit in his professional practice, or has been convicted of a felony by a court of justice.

(c) In case the holder of the certificate has been found guilty by such Board of gross incompetency or of recklessness in the planning or construction of buildings.

(d) In case it is proved to the satisfaction of such Board that the holder of the certificate is a habitual drunkard, or is habitually addicted to the use of morphine, opium, cocaine or other drugs having a similar effect.

Section 29.—Proceedings for the annulment of registration (*i.e.*, the revocation of a certificate) shall be begun by filing written charges against the accused with the Board of Examiners and Registration of Architects. A time and place for the hearing of the charges shall be fixed by the Board. Where personal service or services through counsel cannot be effected, service may be made by publication. At the hearing, the accused shall have the right to be represented by counsel, to introduce evidence, and to examine and cross-examine witnesses. The Board shall make a written report of its findings, which report shall be filed with the Secretary of State of the State of ..... and which shall be conclusive.

Section 30.—Every person who is lawfully making use of the title of architect in this State before the going into effect of this Act, shall, within one (1) year after the going into effect of this Act, record his name with proof of his use of such title with the Board of Examiners and Registration of Architects, such recording not to be interpreted as evidence of competency or ability unless applicant applies for and is granted a certificate of registration. Failure to record within such period, the prior use of such title shall bar the said person from thereafter claiming registration under the provisions of Section 21 of this Act.

Section 31.—On and after the passage of this Act the use of the title architect or registered architect, or the use of any other word or any letters or figures indicated or intended to imply that the person using the same is an architect or registered architect, without compliance with the provisions of this Act, the making of any wilfully false oath or affirmation in any matter or proceeding where an oath or affirmation is required by this Act, shall be deemed a misdemeanour punishable with a fine of not more than two hundred dollars ($200.00), or imprisonment for not more than one (1) year, or both.

Ancient Buildings: Miss Lena Ashwell's Vie

We make no apology for printin address given several months ago b a general meeting of the Society fo Protection of Ancient Buildings, be we consider that Miss Ashwell has de precisely a point of view which, th common, is very difficult to express that this address should therefor given wide currency.

Miss Ashwell spoke as follows:—

Mr. Chairman, Ladies and Gentle it requires courage for me to speak subject so important as the prote and preservation of ancient buildin

My excuse is my utter ignorance o subject—to get a clear view of a su the expert or the completely ign have each a contribution to make.

I know nothing whatever of arch ture and it has not been my inheri to preserve any ancient building. actors, whose work is indeed "wr water," have a temporary per success, our most lasting impression made upon the hearts of men. names may sometimes reappear in tory, but our work is ephemeral. architect is the extreme opposite in His work remains, his beauty end and his name is forgotten. It is a tion which all artists must envy, a the few names such as Wren, Inigo J still are on the lips of the citizens of don and elsewhere, the great wor many remain a permanent help inspiration to the people. Because permanency of all buildings this art be regarded more seriously than arts.

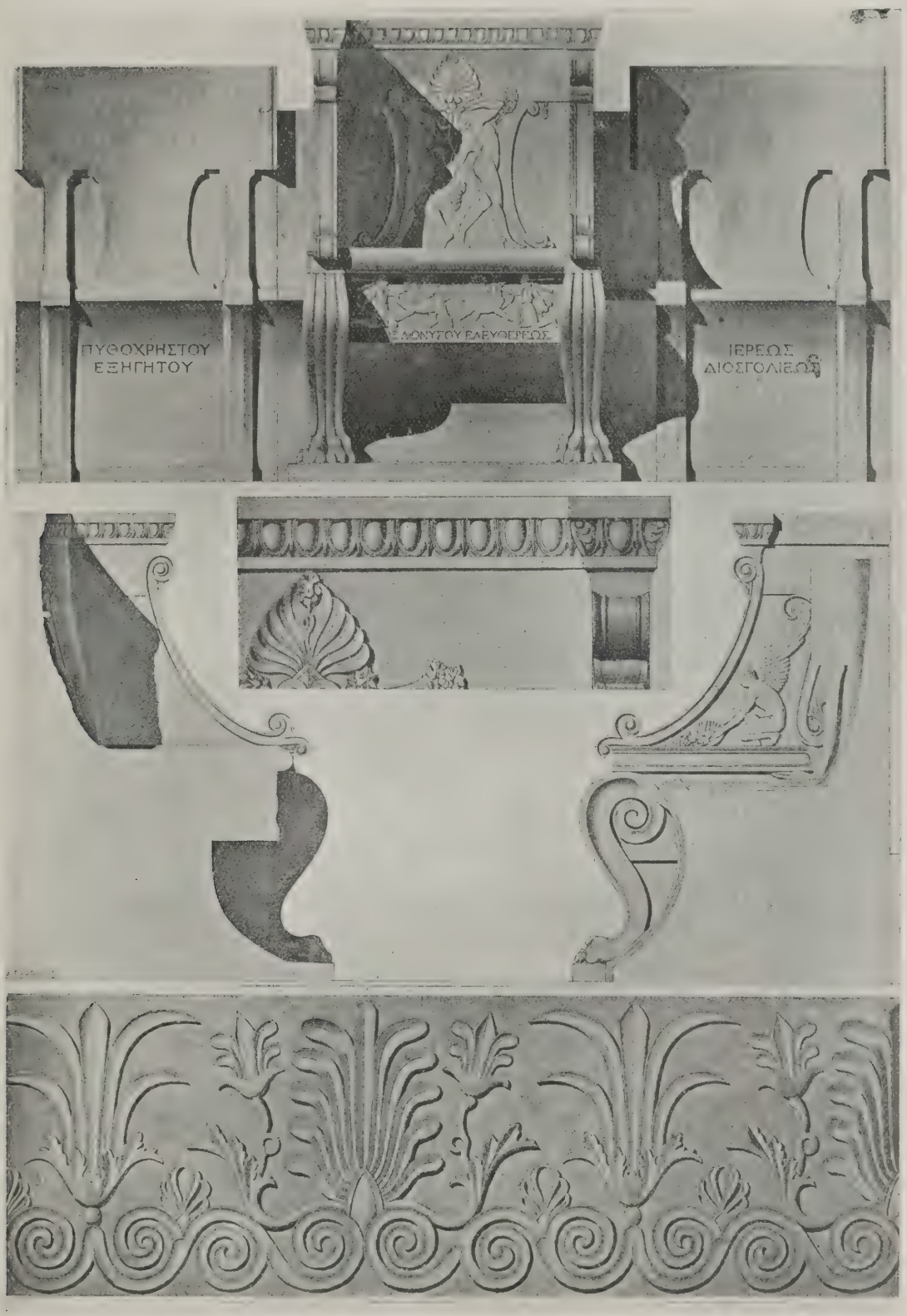
It seems to me that in the nation too little importance is placed upo great influence of beauty; it is curious a nation which has so much beauty inheritance should be often so indiff to it. Many people wishing to mak world better think only of reforms enforcing laws, but I am sure that there is a standard of beauty ugly t are apt to disappear.

You may find the Colonial vie England and its buildings of some est. I was born at sea and brough in Canada. No one in England can any idea what it means to live in a house surrounded by new houses and buildings. English people are so a tomed to their beautiful villages tha romance of their old churches and houses is hardly seen by them. The so enfolded by tradition and history they appear unconscious of its pow deep-rooted in the race.

And London, that amorphous c of an Empire rather than capital o country, you are all accustomed t and forget the amazing wonder a sight of so much history in being. breathless amazement of one's first into St. Paul's Cathedral—the l wonder of the Abbey. The City chu the old halls, the strange, sudden h touch of a building in which great t were done, or some great person The homes of the great leaders of th and leaders in art and literature as as battles and politics. The stra English view of life, with statu Charles and Cromwell in close prox in one street.

(*Continued on page* 471.)

Architectural Details. 13.—Some Greek Fragments



The seat in the above composite drawing is from the Theatre of Bacchus, Athens, and shows the restoration of M. Defrasse. The frieze detail, from the Acropolis, is by M. Pierre André.

Current Architecture. 120.—Holburne Museum (Old Sydney College), Bath

Remodelled and Restored by Sir Reginald Blomfield, R.A., F.R.I.B.A.



The above building, now known as the Holburne Museum, was erected about 1792 from the designs of W. Harcourt Masters. Some account of the very successful work of restoration and remodelling that has been carried out under the direction of Sir Reginald Blomfield is given on page 471.

ou cannot realize what it means to up without a traditional building. ir traditions are the stories and the s of the "old country"; its buildings ave to imagine as the stories take of us. There is little beauty in our s compared with yours and certainly ing very old, and the first moment ets eyes on Drake's Island and visions e Armada, and the great fight with its eaching consequences in the new l, is an unforgettable and thrilling

ie journey in the tiny train; did you the trains seem tiny? through the try with its amazing beauty—this en of England with its cottages and ches and the thousand and one things which remind us of the deep of our race.

ie buildings are an expression of an love, love of God, love of home, of work; there is little sign of a desire ake money in the beautiful build- They remind people of a time when le created loveliness because they l. These buildings express the desire ie beauty in life, and the goodness of The future is being created now, we are inspired by the memory of beautiful actions and the beautiful ings of our forefathers. A great t should be made by us all to preserve beauty which has inspired men to up even their lives in guarding it. are a living expression of the past. us preserve for those to come after, iat is best and most beautiful as an ration for them to live by.

page 24 of the Annual Report there articularly beautiful example of how ast may be linked with the present rm a sign for all time of love and athy with truth and beauty.

e Town Hall of the village of Faring- Berkshire, has been repaired. It has been repaired as a memorial to the men of that town who fell in the war. They had the tradition of their village within them, and now in the place where they lived and for which they died they are for ever associated with the past and the future will be built on their sacrifice. Their memorial was a part of the building, carrying on a tradition of the building with its beauty, its usefulness, truth and goodness.

You cannot understand it, but Canadians have their hearts rooted in the Mother Country. They, too, are part of her past, a part of England.

The English should remember that their ancient buildings are the monuments of the history of the race, and it is through our history that the Empire is maintained.

Holburne Museum: An Interesting Remodelling

The building which is now known as Holburne Museum was a typical example of the very late Georgian manner, when refinement and restraint had combined to produce rather dull and uninteresting architecture. In Sir Reginald Blomfield's restoration there is a marked difference. The building possesses a subtle flavour of romance, a sort of aspiration and mystery, which are totally lacking in the original. We are reminded slightly of Vanbrugh by this design; but, needless to say, the detail has none of his atrocious coarseness. There is unquestionably the sensation of a living creation here; one could easily believe that it belongs to an earlier age.

The method by which Sir Reginald has obtained his extra appearance of height is very subtle and well worth considering. He has discovered, as anyone may, that the old building is badly out of proportion, the old designer having probably sacrificed his composition in order to emphasize the windows of his principal apartments on the first floor. As a result of this emphasis, and of the height of the first story, the rusticated ground story is weakened in such a manner as to suggest that the feet of it have been cut off and the thing left to stand on its mutilated legs, the arcade, of course, accentuating the suggestion of squatness. Sir Reginald has overcome this ugly appearance by first of all terminating the base of the building at its corners, and, secondly, by shortening the windows each side of the arcade, with the result that the arcade appears lofty in contrast with the short windows. The first and second stories he has turned into one, masking the second-story windows with medallions, and narrowing and heightening the first-story windows in such a way that (1) they appear to heighten the whole building, and (2) they appear slimmer on account of their extra height than the windows in the ground floor, and thus do not (as in the earlier building) appear to overweigh them.

The first floor is confined to the museum, while the top floor acts as a picture gallery, and is top-lit; the lower part of the building consists of the curator's quarters.

Sir Reginald Blomfield's work on the exterior can easily be distinguished by comparison with the illustration of the original building. It only remains to say that the pediment and order are identical in both cases, that the interior was gutted and redecorated, and that the intention was to carry out a double colonnade on each side with a vista through, but for the sake of economy this was not done. It will be noticed also that in the renovation the chimneys and chimney-stacks have disappeared, with a gain of dignity to the building.



Photo by courtesy of Mr. Mowbray A. Green.

HOLBURNE MUSEUM, BATH, BEFORE THE REMODELLING BY SIR REGINALD BLOMFIELD.

Correspondence

How to Revive Confidence in Building

To the Editors of THE ARCHITECTS' JOURNAL.

SIRS,—It is characteristic of the concern consistently shown by THE ARCHITECTS' JOURNAL for the interests of those who are engaged in building, that its columns should be occupied with a discussion as to the best means of stimulating the present disastrous inactivity which threatens the prosperity of architect and contractor alike.

While there is much to be said in support of the contentions of your leader writer, whose eloquent appeal appeared in your issue of September 28, neither he nor your subsequent correspondents seem to have taken into account the most obvious explanation of the existing condition of affairs.

Can it be denied that the reluctance to build shown by the public is solely due to its sheer inability to meet the heavy building charges which are now the rule? In face of them the client quite naturally postpones his enterprise for the same reason that in 1919 the writer of this letter flatly refused to pay £20 for an overcoat worth £6.

Building costs—whatever may be the cause—are to-day anything between 2½ and 3 times what they were in 1914, so that in respect of, say, a country house, the architect's commission is multiplied accordingly—although his work remains the same. The client knows this perfectly well, and even if he finds he *must* build, his next step is to dispense with an architect.

Just how this is to be avoided is not easy to suggest, but that a great deal of work is thus lost to architects is unfortunately but too well known.

F.R.I.B.A.

To the Editors of THE ARCHITECTS' JOURNAL.

SIRS,—Under existing methods public confidence in building as an investment will only be restored completely when costs are such as will make building profitable to the building owner. This is so obvious as scarcely to need stating, but the repetition of the truth of the matter will do no harm and may make to think some who take buildings too much for granted.

If we must wait for costs to fall enough we shall lack work for a long time to come; prosperity in the building trade always follows a trade boom, and at present we are still stuck fast in a slump with little prospect of getting out of it. But Mr. Martin Kaye's suggestion would induce many, who are only waiting for lower prices, to build now.

One hears much of all-round poverty, but the frequent issue of Government and other loans which are quickly subscribed seems to prove the contrary. This wealth, it is true, may be only paper money, but it is capable of being transformed into good bricks and mortar.

Were Mr. Martin Kaye's scheme adopted generally by architects and builders an artificial boom would be created which would make up building arrears, provide work and wages for many, and would evoke a generous response from intelligent labour. For architect as well as for builder working for little or nothing is better than waiting for nothing whatever.

Another suggestion recently made in your Journal, if applied together with that of Mr. Martin Kaye, would help to get us out of the present stagnation—that local authorities should forgo a large portion of the rates on all new buildings for a given time. This is a practical suggestion, for it would help to get building going, and it would pay a local authority to be getting some rates rather than none at all.

But is it necessary to wait for the client, who may be slow in opening his cash-box even on the suggested terms?

Yours faithfully,

ARTHUR WELFORD, A.R.I.B.A.

Old Cottages

To the Editors of THE ARCHITECTS' JOURNAL.

SIRS,—For twenty years I have not had any executive connection with the Society for the Protection of Ancient Buildings, but a month ago, having seen about the repair of the old cottages in Suffolk, I was moved to send them a little note of congratulation. In consequence of this, I suppose, they have now sent on to me Mr. Aymer Vallance's letter in your last issue. I hate to interfere, for Mr. Vallance is also a friend of mine, but having been asked, I can hardly get out of "testifying," whatever that may be worth. From his letter I do not suppose that Mr. Vallance knows the full facts, and I believe it might satisfy him if he would read the pamphlet describing the work and look over the many illustrations.

The cottages were derelict; they were bought by the Society, and were made sound, clean and habitable at a cost of £720. It was the very essence of the experiment that the work should be economic and sanitary according to modern standards. I am told that the window with leaded glass had to be renewed, and the additional windows were of course put in for reasons of light and health. On one side of the problem the Society would agree with Mr. Vallance, but having regard to the conditions of the case, they believe they did what was right.

Having studied the pamphlet I think that this work of the S.P.A.B. has been entirely disinterested and beneficent, even noble and of national importance, in giving an example of how thousands of old English homes which have fallen into squalor and ruin may be redeemed.

Yours faithfully,

W. R. LETHABY.

Air Ministry and the Grissell Prize

The Air Council have signified their warm appreciation of the decision of the Council of the R.I.B.A. to award the Grissell Prize this year for the best design of an Airship Mooring Mast. The competition (prize, a medal and £50) is open to architects who are British subjects, and have not been in professional practice for more than ten years. The Air Council, in asking that facilities shall be given them to see the more promising designs, express their readiness to nominate an expert to give assistance to the Committee on any points in which actual airship experience would be of value.

Law Reports

Mid-Georgian Manor Hous Destroyed

Action for Work Done

Waring and Gillow, Ltd. v. Doughty.

Oct. 6–7. King's Bench Division. Before Mr. Justice Sankey.

The destruction by fire of a Mi Georgian manor house, near Hitchin, November, 1919, was the cause of th action, in which Messrs. Waring a Gillow, Limited, claimed the sum £4,406 from Mr. William Vere Dought of 1 Harrington Court, W., alleging th to be the balance due from him in respe of work done and goods supplied wh modernizing the mansion for his u Defendant did not admit the claim, a in turn counter-claimed for £25,000 the value of the manor house, and oth sums, including £3,000 for loss of occup tion, alleging that the fire was caused plaintiff's negligence and carelessness, which Messrs. Waring and Gillow repli by denying any breach of duty or con quent liability.

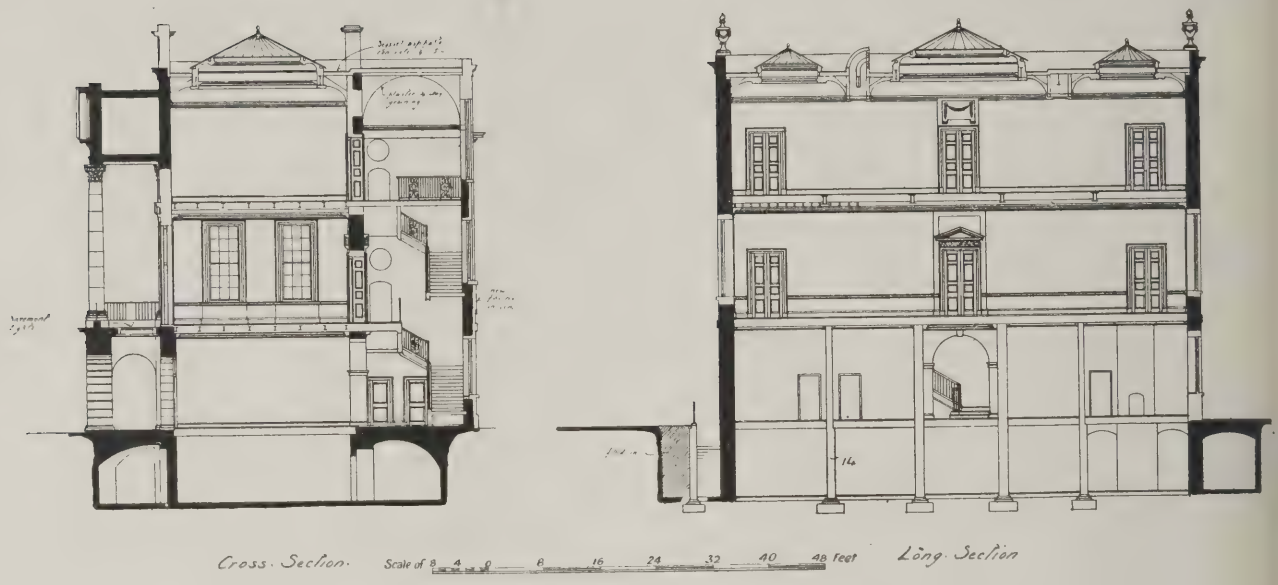
Mr. Hollis Walker, K.C., and Mr. A. Woodgate were for the plaintiffs, and M Atkinson, K.C., and Mr. Giveen rep sented the defendant.

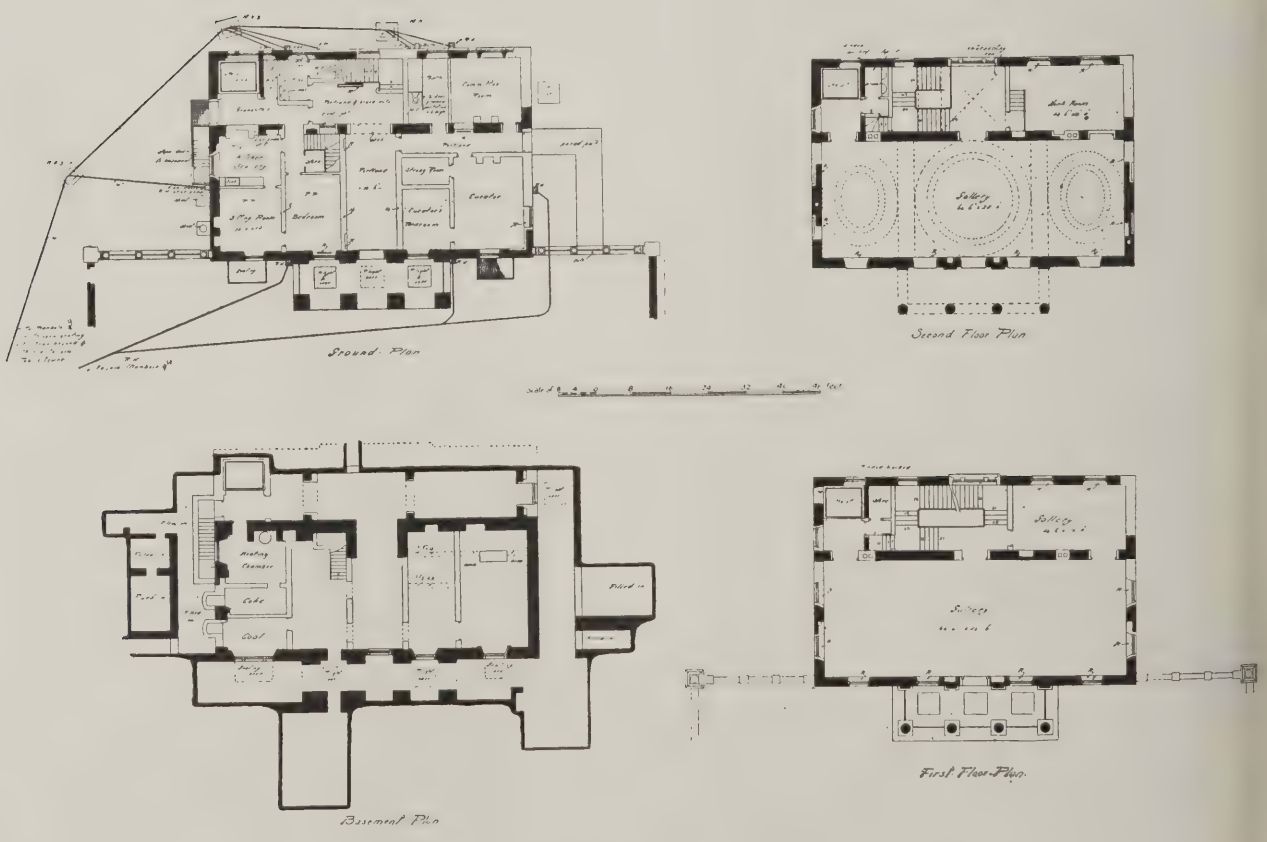
Mr. Hollis Walker, in opening, s defendant had acquired a Georgian ma house in the neighbourhood of Hitch which was in the course of being rec structed and decorated by the plaint when it was practically destroyed by f Plaintiffs claimed for goods supplied a for work and labour done to the premi during August to November, 1919, a various defences were set up to that cla one of which was that the plaintiffs w engaged for reward on the premises, a it was their duty so to carry out the w that the premises should not be dama or destroyed, and, in particular, that t should not do anything or omit to anything that might expose the place risk of damage by fire, and defend counter-claimed for £25,000 for the va of the mansion, £1,000 paid on acco of the work done, a total of £5,000 p to other firms in respect of the erectio greenhouses and the decoration to servants' quarters and the greenhou and £3,000 for loss of occupation. main issue to be decided was as to whet plaintiffs were legally responsible for fire, which occurred on the night November 19–20, 1919, and, if they w liable, what damages they should p He submitted, in view of the coun claim, that the onus was on the defend to prove that plaintiffs were respons for the fire.

Mr. Atkinson assented, and said defendant in the action bought Ickle Manor House in August 1919, and, arrangement, representatives of Mes Waring and Gillow went over the pl and suggested what should be done modernize it. It was also agreed plaintiffs should have complete posses for the time being, and from that t until the fire Messrs. Waring and Gi were in sole possession of those prem Nobody else was doing any work of kind in the mansion at the time. W they were there a representative of plaintiffs pointed out to Mr. Dought oak beam over the kitchen fireplace,

Current Architecture. 121.—Holbur

Drawings showing the Building as Remodelled

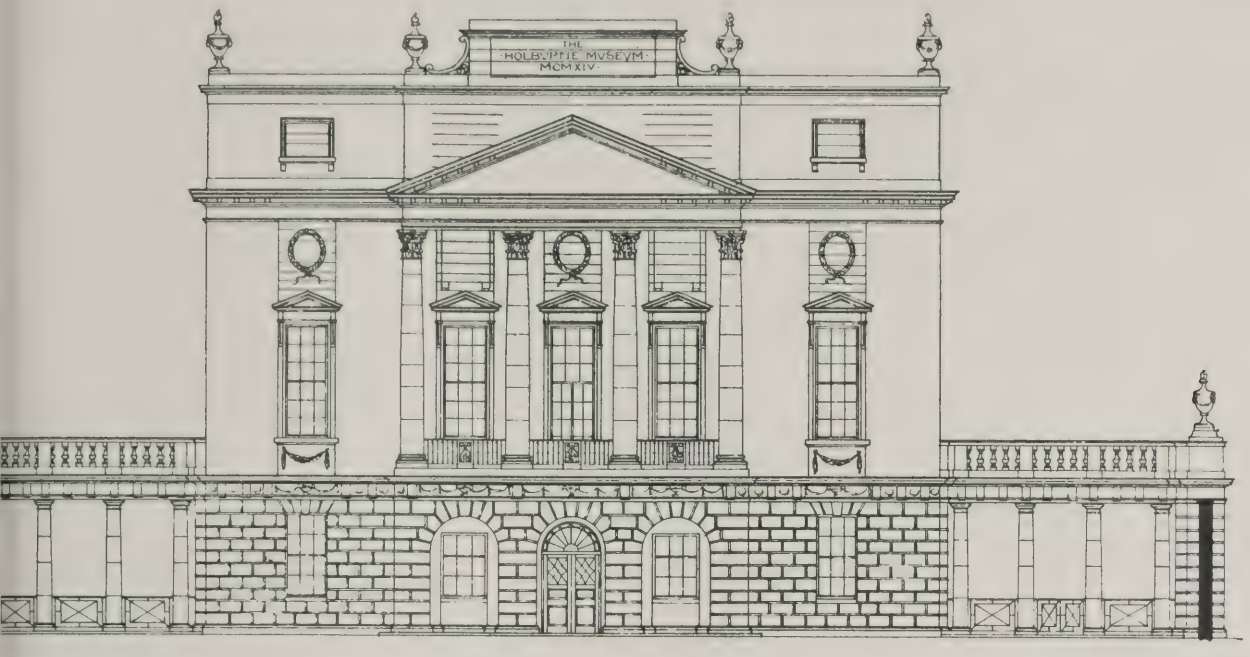




Old Sydney Hotel, afterwards Sydney College, was erected about 1792 from the design of W. Harcourt Masters. It has l
originally

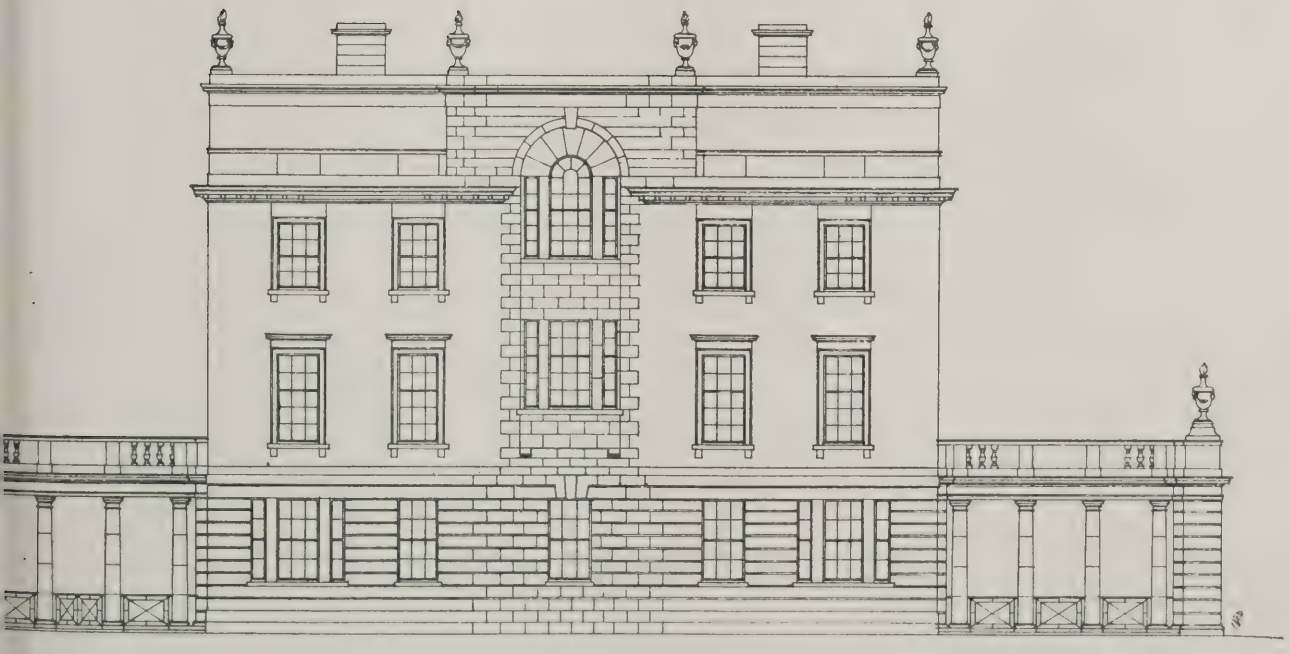
um (Old Sydney College), Bath.

d by Sir Reginald Blomfield, R.A., F.R.I.B.A.



Front Elevation.

Scale of 8 4 0 8 16 24 32 40 48 Feet.



Back Elevation.

nd restored by Sir Reginald Blomfield, and now serves the purpose of a museum. A photograph of the building as it
age 471.

sted that it was dangerous and ought substituted by a steel girder. Mr. hty agreed, and instructed the repre- tive to carry out any similar sub- ions in the house he thought desir- and the plaintiffs admitted that they l and removed four of those old oak s. On an occasion when Mrs. hty visited the house she found that lumbers were using a room on the d floor in the north-eastern part of ouse, where there was a big fire being for melting lead, which she con- d dangerous, and said so to her nter in a tone that could have been by the plumbers at work there. the fire was first seen on the morn- f November 20 he contended that s located in that part of the house e the plumbers' shop had been. The as first seen at 2.30, and by 3.30 the was practically gutted.

s Lordship, in giving judgment on ounter-claim, said the question he rying was, who was responsible for oss of the house, and he had three ions to answer, viz. :—(1) Where he fire break out ? (2) What caused nd (3) Were the plaintiffs guilty of egligence which had caused the fire ? gard to the first question he had come e conclusion, on the evidence placed e him, that the fire did break out in oom used by the plumbers. More- he was satisfied that there was tim- lose to or coming into the room in ion; but he was quite unable to say ner it was a wooden bressummer or timber higher up. He thought the r answer to that question was that re was caused by some timber in the of the plumbers' room becoming d. But he did not say it was a because he doubted if there was a en lintel in the chimney of that room same kind as those taken from some of the other rooms. On the question as to whether the plaintiffs were guilty of negligence, he noted that the defendants said it was dangerous to use that room as a plumbers' room at all, but he was wholly unable to agree that the mere fact of using the bedroom as a plumbers' room was evidence of negligence. Were the plaintiffs negligent in using that particular room in the way they did ? He had come to the conclusion that the user of the fire in the grate on that occasion was little more than the user of it as an ordinary bedroom fire, and therefore he was of the opinion that there was no negligence in the plaintiffs using that room as a plumbers' room in the way they did. Therefore, in his view, on that part of the case, his judgment must be against the defendant, and on that point in favour of the plaintiffs.

His Lordship made an order referring the claim of Messrs. Waring and Gillow to the Official Referee.

Dilapidation Issue

Wilson v. Cox.

Oct. 5. King's Bench Division. Before Mr. Justice Astbury

This was an action by Mr. Cecil Carus Wilson, of 16 Waldegrave Park, Strawberry Hill, Twickenham, against Mr. Rowland Wilton Cox, of 12 Waldegrave Park, to recover possession of the house occupied by the defendant, and damages for alleged breaches of an agreement of August 19, 1916, made between plaintiff and defendant. Counsel for the plaintiff said that the ground of action was that there had been breaches of the covenant to repair, and also that there had been a legal notice to quit. The defendant denied these allegations, and, in addition, pleaded the Rent Restriction Act. The agreement was for three years, the rent was £65, and under the agreement the tenant had to keep the gutters, leads, and stack-pipes free from leaves. The plaintiff had put the house into perfect condition, having spent more than one year's rent upon it, and soon after the defendant went into possession damp began to develop in some of the rooms.

Evidence was given on behalf of the plaintiff by Mr. Thomas Smith, surveyor, of Kingston, and by Mr. H. J. Hewlitt, surveyor, of Harrow, for the defendant, and his Lordship gave judgment, awarding the plaintiff £20 in respect of dilapidations to date, and dismissed the rest of the action against the defendant, and ordered the plaintiff to pay three-quarters of the defendant's taxed costs.

The Late Mr. F. G. Briggs

The following appreciation is specially contributed by Mr. T. Taliesin Rees, F.R.I.B.A. :—

The death of Mr. Frank Gatley Briggs came with startling suddenness, and, to those who had seen him a few days before, as a great shock. He was with his wife on a few days' visit to Birkdale, enjoying his favourite pastime of golf, of which game he was no mean exponent. On the evening of his death he complained of being tired and not feeling well, and a few minutes after retiring he passed away.

Mr. Briggs was articled to Mr. John Clarke of Liverpool, and on completing his articles remained with him as his chief assistant until he joined Mr. Wolstenholme of Blackburn in partnership. Although Mr. Briggs was a native of Blackburn, he was essentially a Liverpool man, and an office under the style of "Briggs and Wolstenholme" was opened in Liverpool under the charge of Mr. Briggs.

About twenty-two years ago The Mersey Dock and Harbour Board invited designs for their new offices at Liverpool, and Messrs. Briggs and Wolstenholme, in collaboration with Mr. Arnold Thornely and Mr. F. B. Hobbs, were successful in being placed first in the competition. After some modifications their design was carried out. This was really the beginning of Mr. Briggs's very successful career. The result of this building was the firm of Messrs. Briggs, Wolstenholme, and Thornely, and after Mr. Wolstenholme's retirement the firm became Messrs. Briggs and Thornely.

Messrs. Briggs and Thornely have been particularly fortunate in competitions, and amongst their many designs placed first were those of: Gamble Institute, St. Helens; Wigan Mining College; Libraries of St. Helens, Stafford, and Liverpool; Dock Board Offices, Liverpool; Blue Coat School, Liverpool; Wallasey Town Hall; Stepney Town Hall; and King Edward VII's School, Lytham. Mr. Briggs was also associated in the preparation of the designs for: The Engineering and Chemical Laboratories of Liverpool University; Bank of British West Africa; Elder Dempster's Offices, Liverpool; Palatine Bank, Manchester; Public Halls, Blackburn, etc., etc.

He was frequently called upon to act as assessor in competitions, and he occupied a high position as the consulting architect to various public bodies.

Amongst his professional brethren he was held in high esteem, and his clearness of vision and sound judgment caused him



THE LATE MR. F. G. BRIGGS, F.R.I.B.A.

to be frequently consulted on many difficult architectural problems.

But it was not only as an architect that the writer knew the late Mr. Briggs, and, indeed, to know him you had to meet him on a holiday or on the golf links. It was on occasions of this kind that one had the opportunity of becoming closely acquainted with him. He was as keen as a sportsman as he was great as an architect, and if one were asked briefly to sum up Mr. Briggs's character it would be "scrupulous fairness in business as well as in pleasure."

To know Frank Briggs intimately was to love him, and that is the highest tribute that can be paid to any man.

New Zealand Institute of Architects

Every effort is being made by the New Zealand Institute of Architects—a live body with a membership of 367—to secure a higher standing for the profession, a greater public recognition for architecture, and much-needed improvements in the methods of constructing buildings. How this policy is to be pursued is clearly outlined in the proceedings of the Institute for the past year.

Perhaps the most important decision of the Institute is that to promote legislation to obtain an amendment to the Institute of Architects Act, which, besides widening the functions and influence of the Institute, will place the architect on a somewhat similar footing to that of the legal practitioner. Should the amendment receive Parliamentary sanction an offender against professional honour will be tried before the Supreme Court of New Zealand, who will have the power to remove his name from the roll of the Institute, or to suspend him from membership for a time. While the removal of a law practitioner from the roll results in the suspension of his means of livelihood, this of course is not the case with the architect. Legally, an architect removed from the roll would still be able to practise; but the prospect of Supreme Court action should act as a powerful deterrent to irregularities, as it would be of little use any man attempting public practice after condemnation by a full court.

During the year thirty new members were admitted, nine articles of apprenticeship recorded, and forty-five students were registered. Students are now only admitted to the Institute after matriculation.

The council and officers of the Institute are as follows :—

President : Mr. C. Reginald Ford. Vice-Presidents : Messrs. B. C. Chilwell, J. H. Burr, T. H. Battle, W. Crichton, E. J. Greenstreet, L. D. Coombs, C. J. Brodrick. Elected Members : Auckland—Messrs, Savage, Gummer, and Morran; Hawkes Bay-Gisborne—Messrs. Greig and Davies; Taranaki-Wanganui — Messrs. Ford and Duffil; Wellington—Messrs. Swan, Page, and Munnings; Canterbury—Messrs. Hart, Penlington, and Murray; Otago—Messrs. Hooper and Mandeno; Southland—Mr. E. R. Wilson. Counsel : Messrs. Chapman, Skerrett, Tripp, and Blair. Secretary : Mr. W. Beauchamp-Platts, J.P., F.P.A. (N.Z.). The registered office of the Institute is 7 Woodward Street, Wellington, New Zealand.

The New "Wimbledon"

The enormous crowds which flock each year to Wimbledon to watch the International Tennis matches have forced upon the All-England Lawn Tennis Ground, Ltd., the necessity for a larger stand. The preparation of the plans for the new stand have been entrusted to Capt. C. Stanley Peach, F.R.I.B.A., who has had considerable experience in dealing with architectural subjects embodying difficult engineering problems.

The committee have carefully weighed up the points which combined in making the old ground so popular, and have decided to erect the new stand amid the old scenes. They are therefore striving to eliminate all the defects, but to preserve the features of the old ground with which lawn-tennis is so intimately associated. The relationship between the spectators and the players in a tennis match is a much more personal one than in cricket, polo, or, in fact, any other sport, and the effort of our American cousins to arrange for matches to proceed on four courts simultaneously before one huge tennis stand has not appealed to English sensibilities, and is not being followed in the present instance.

The site, which is in the shape of a flat-iron, is surrounded by golf links and athletic grounds. The final selection of the ground was determined by its accessibility. Somerset Road and Wimbledon Park Road, running respectively on either side of the site, will prevent any congestion in the accommodation of waiting cars, and will also provide plenty of access and egress. The gentle slope of the ground towards Wimbledon Park has provided the architect with a site having great possibilities, and by means of careful thought every portion has been utilized to its best advantage. The centre court and the championship hard and grass courts are situated at the widest end of the site. These courts, together with other hard and grass courts, which fill in the space except at the toe of the site, are to be levelled up in the form of terraces, and will give a very pleasing general effect. The toe will probably be used as a park for cars.

The centre-court stand, which will seat about 10,000 people, will surround one grass court only, and will be covered except for a few seats on each side of the court. The standing room for about 2,000 people is close to the court and off the main gangway, as it is in the old ground. The study of the approaches to the seats and gangways, which are very numerous, has been particularly directed to ensure the greatest possible convenience for the assembling and dispersing of the crowds which are likely to congregate. Improvements are to be made in the dressing-rooms for the players, and a feature which will be new to this stand will be the provision of cloak-rooms for the public. This has never been possible before, owing to the limited amount of space. There are also to be large luncheon and tea rooms, and a lawn which, although partly under the stand, will be alfresco, and will command an interesting and beautiful view over the golf links. In the design of the new stand the seats for the members of the committee, the players, and the members of the club are grouped together close to the Royal retiring-rooms, the press-rooms, and dressing-rooms, instead of being divi some at one end and some at the ot as at the present time. One more p of interest in connection with the stand is the gangway which will co tute the entrance and exit from the u tiers of seats, and which will ex almost entirely round the stand. gangway, or balcony, will comman panoramic view of the whole grounds

A new feature in the scheme, and which it is expected will be of grea terest, is the combination of the ch pionship hard court with the ce court. Although outside the ce court, the arrangement is such that h court matches can be viewed from gangway and covered seats under main stand, and the same entra dressing-rooms, and other secondary commodation will suffice for both. this way it will be possible to use stand for two purposes in the year, the devotees of the hard court have as carefully provided for as those pin their faith to the grass-court gam

In designing the new stand in forced concrete careful consideration been given to the essentials of cons tion, and it is believed, says Mr. E Richardson in the current issue "Kahncrete Engineering," that it wi a demonstration of the architectural e which can be obtained with this mat when dealt with sympathetically.

The design for the stand has been pared in collaboration between the a tect and The Trussed Concrete Steel Ltd., reinforced concrete specialists, at a later date interesting illustra will be available. The contract for work has been let to Messrs. Stu Granolithic Co., Ltd., and the steel is being supplied by Messrs. Archibal Dawnay and Sons, Ltd.

The Futility of Unpri Catalogues

H.M. Commercial Counsellor at Sh hai, in his annual report on the Com cial and Economic Situation in C says that it is extremely difficult t duce British and native buyers in C to take any interest in catalogu which no prices are given. Mr. recently found opportunity of sho some new illustrations of an appl for cleaning the interiors of large b ings to a firm holding the contrac the heating and sanitary arrangemer a six-storied office building in cour erection. There are comparatively large buildings in Shanghai, but number is being increased by the tion, either already commenced or templated, of modern buildings as b hotels, theatres, garages, etc., and present moment is opportune for introduction of an appliance of the here indicated. The Chinese own the new offices was interested at but the contractor was unable to even an approximate idea of the c the plant. He has telegraphed f estimate, but it is unlikely tha United Kingdom company will be to quote by wire, and more than that the owner's enthusiasm will evaporated by the time the mat again presented to him. In this case n to furnish full particulars has pro lost an order to the United Kingdo

Reinforced Concrete Bunkers

Their Use in Connection with Blast Furnaces

By GEORGE E. TURNER

ESTABLISHED in 1856, the firm of Messrs. T. and I. Bradley kept the even tenor of their way until, under ure of war requirements, the output ased to three or four times what in ar days was considered possible with xisting plant.

alizing the probable demands of the e, the directors decided on an exten- scheme of enlargement of their ce capacity, entailing substantial vements along the lines of the anical handling of materials.

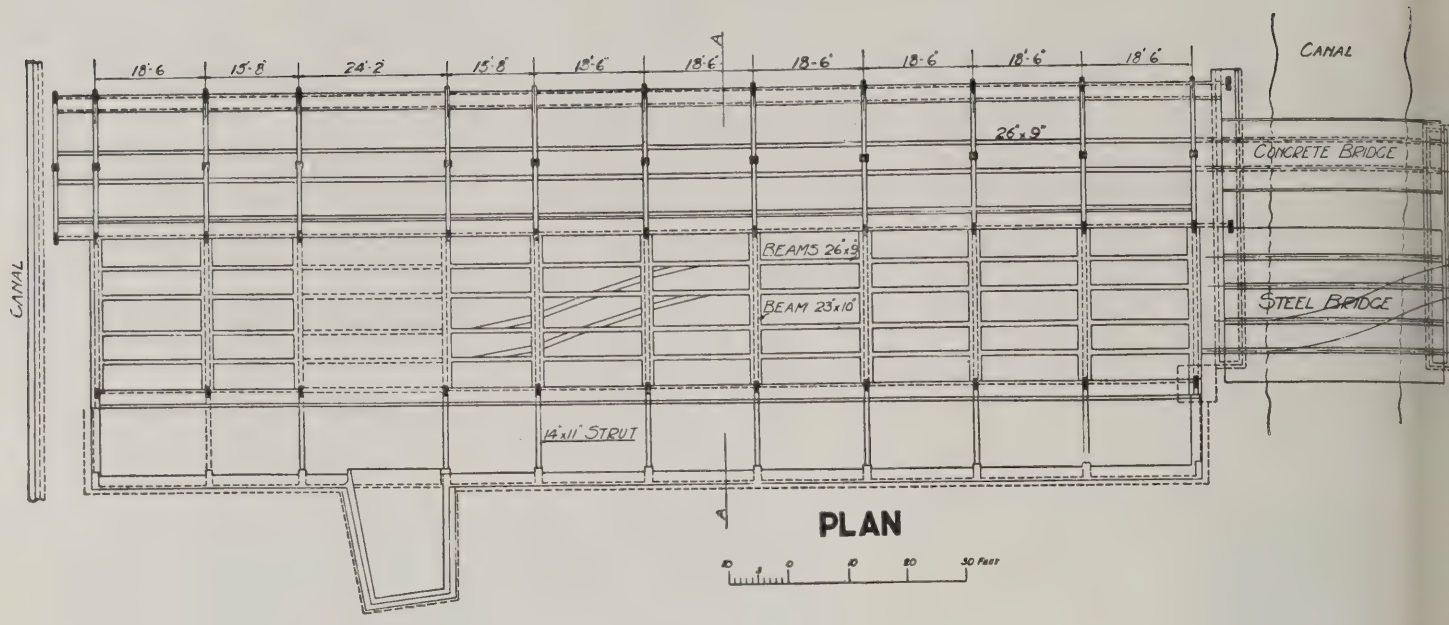
The original intention was to construct only the underground portion of these bunkers in reinforced concrete with the superstructure in steel, but the engineer eventually recommended reinforced concrete for the entire structure, partly owing to economy in cost of construction and reduced upkeep charges, and also owing to the fact that structural steel of such heavy sections was at the time most difficult to obtain. The cost of the reinforced concrete bunkers was kept down by using as aggregate the furnace slags which had been deposited on the ground for a very long time.

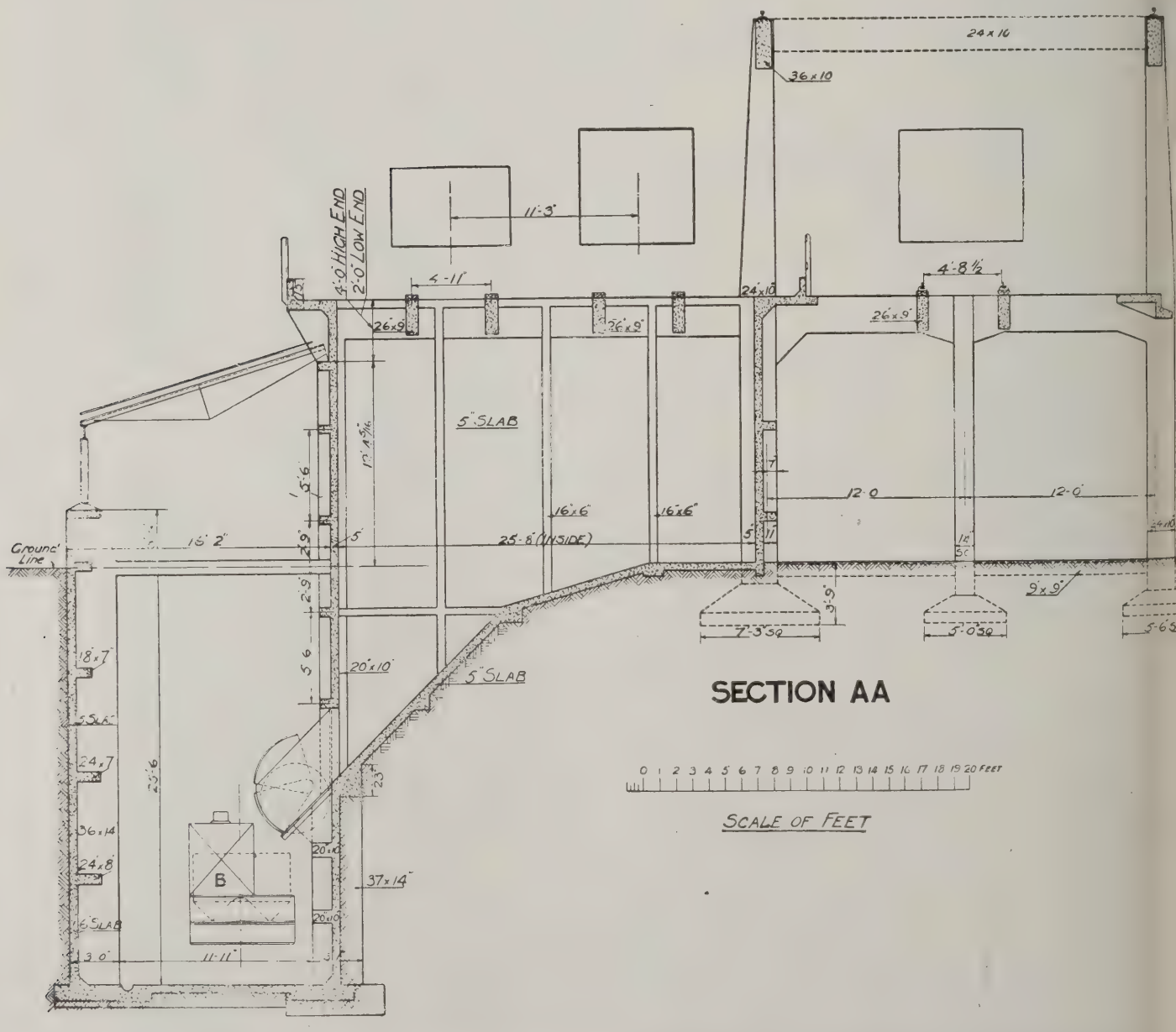
The main object of these bunkers is to receive from a high-level railway siding passing through the works daily consignments of iron ore, lime, and coke, and to store several days' deliveries of these materials, from which supplies for the furnaces can be drawn conveniently as required.

For this purpose the railway trucks discharge directly into the bunkers, which have a capacity of approximately



REINFORCED CONCRETE BUNKERS FOR MESSRS BRADLEY AND FOSTER, LTD., DARLASTON





REINFORCED CONCRETE BUNKERS FOR MESSRS. BRADLEY AND FOSTER, LTD., DARLASTON: PLAN AND SECTION.

750 cubic yards. At the bottom of these ınkers chutes are provided which fill the ns of a traverser marked "B" on Sec- on "AA," which, after weighing the ıarge, conveys it to an inclined way to e seen in the distance in the illustration ı page 479, which deposits it into the ast furnace. The furnaces by these eans are automatically charged, and the bour is reduced by one-fourth, and the ıtput increased at least 300 per cent.

The level of the railway being fixed, the ındling by gravity of the desired quan- ty of materials in the available space ade it necessary to construct a pit 5 ft. 6 in. below ground level. The oximity of canals and the nature of the ound demanded the greatest care and genuity of all concerned in the con- ruction. The pit is clearly shown in the ustration on page 479.

As can be seen on Section "AA," there further storage space available behind ıe bunkers. This space is provided with ı elevated rail track as well as an ele- ıted crane track, to be seen in the ustration below. This arrangement rings the materials stored outside the ınkers in contact with the automatic ant with the minimum handling, and ables the stores to be replenished also canal barges, as the crane track at one id has been cantilevered out in order that ıe crane may reach the materials afloat.

The entire work was carried out while ıe furnaces were in full blast, and this quired a great deal of temporary work to done. That the bunkers were completed ithout seriously interrupting the furnaces very creditable to the contractors.

Messrs. Bradley's own engineers were charge of this construction, Messrs. uart's Granolithic Co., Ltd., were the ntractors, and the Trussed Concrete eel Co., Ltd., furnished the design and e steel reinforcement bent ready to be aced into the for ns.

Societies and Institutions

The P.R.I.B.A. to Visit Birmingham.

Mr. Paul Waterhouse, M.A., President of the Royal Institute of British Architects, has accepted an invitation to visit the Birmingham Architectural Association on January 13.

Society of Architects Assistant Secretaryship.

An assistant secretary is required by The Society of Architects. Applicants should have a knowledge of architectural matters, some experience of secretarial work, and be proficient in one or more foreign languages, including French. Some acquaintance with journalism is also desirable. The salary to commence is £350 per annum. Forms of application may be obtained by sending a foolscap envelope, stamped, addressed, and endorsed on the outside "Assistant Secretary," to the Secretary, at 28 Bedford Square, London, W.C.1.

Professor Laurie's Lectures at the Royal Academy.

Professor A. P. Laurie, M.A., B.Sc., Professor of Chemistry in the Royal Academy, is delivering the following lectures at the Academy at 4 p.m. on the dates mentioned :—

(1) Wednesday, November 16.—Mediæval pigments and mediums. (2) Thursday, November 17.—Modern pigments : their proper selection and use. (3) Friday, November 18.—Painting media : oils, varnishes, and tempera. (4) Monday, November 21.—Methods of wall painting. (5) Tuesday, November 22.—The theory of colour and its application to painting. (6) Wednesday, November 23.—The nature and properties of building materials, bricks, and new methods of making them.

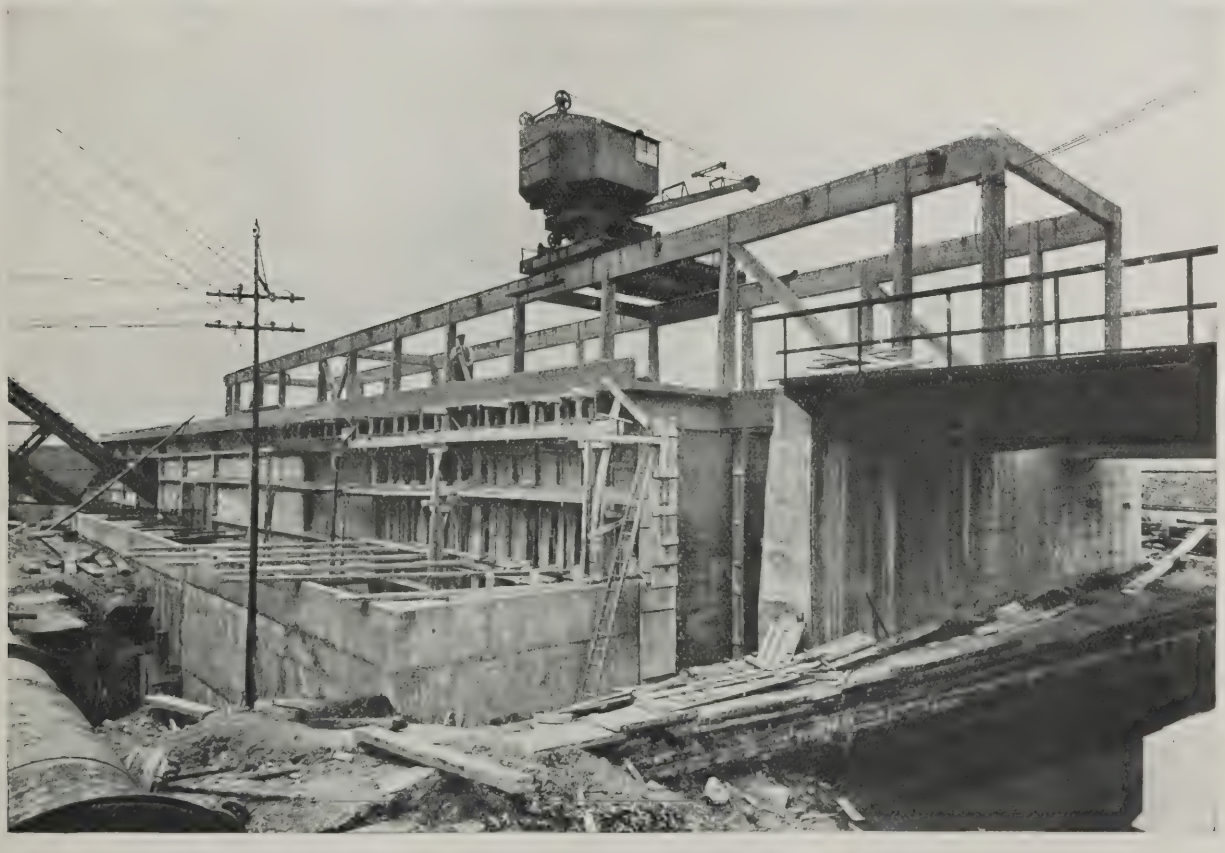
Association of Norwich Architects.

At the annual meeting of the Association of Norwich Architects, held in that city, the members were entertained to tea by the President, Mr. E. T. Boardman, F.R.I.B.A. Mr. Boardman himself was prevented by ill-health from being present. The meeting unanimously decided to seek affiliation with the R.I.B.A., and to enlarge the Association to cover the whole of Norfolk and Norwich. A sub-committee was appointed to report on the latter proposal to a meeting to be held shortly, to which all the architects of Norfolk and Norwich will be invited.

Cardiff Architectural Atelier.

For some time there has been a demand in South Wales for a more up-to-date system of architectural training for the young man whose time is fully occupied in office work during the day. When the Cardiff Education Authorities began the New School of Architecture at the Technical College last year this important point was not lost sight of, and, in conjunction with the South Wales Institute of Architects, a scheme now in operation was prepared for an atelier to be held on Wednesday evenings at the Technical College from 6 to 8 o'clock throughout the winter.

At the first meeting, which has just been held, Mr. W. S. Purcheon, M.A., A.R.I.B.A., head of the School of Architecture, outlined the scheme to a large number of assistants from the various architects' offices in the district, and the first subject, "A Design for a Memorial Lecture Theatre," was announced. The South Wales Institute of Architects has, at the request of the Technical Advisory Committee, appointed Mr. Percy Thomas, O.B.E., A.R.I.B.A., to act as weekly visitor to criticize the work. The subjects set in design will be suitable for advanced students.



REINFORCED CONCRETE BUNKERS FOR MESSRS. BRADLEY AND FOSTER, DARLASTON.

New Cottages for Old

The Society for the Protection of Ancient Buildings has just issued its annual report, which includes a striking address by Miss Lena Ashwell on the importance of the Society's work. That the year has been a progressive one is displayed by the variety of activities illustrated in the pamphlet; and both in its practical work, and in its capacity as an advisory body, the Society's sphere of action has expanded. Unfortunately as regards revenue its position is more precarious, and we earnestly invite those who are not members, and who appreciate the importance of this splendid society, to fill up the forms inserted in the beginning of the report. Our gratitude is due to the Society this year for the strong action it took in the matter of the nineteen City churches condemned to destruction by the Bishop of London's Commission. All the principal bodies known to be interested in the matter—the Royal Academy, the R.I.B.A., the Victoria and Albert Museum, and others—were approached with a view to combined action, so that the strongest possible protest could be lodged with the Bishop of London, and as a result a representative conference was convened by the Royal Academy of Arts, and the strong memorandum put forward was one of the factors which led to the withdrawal of the Commission's proposal.

Throughout the year, says the report, the committee has maintained its efforts to foster greater public interest in old cottages and to urge their preservation. In a recent issue of this JOURNAL we illustrated two cottages at Drinkstone, Suffolk, whose repair, taken in hand by the Society, necessitated a good deal of exterior alteration in the matter of window openings. This extracted a letter of complaint from a correspondent. "The pictures of the two states—before and after"—he says, "demonstrate that the building has been disfigured rather than anything else, in the 'converting' process . . . four new windows in fresh situations have been introduced, breaking up the wall-surface with a number of restless, fussy apertures, entirely destructive of the broad, reposeful aspect which the building formerly presented. If this is a specimen of the best that an enlightened society of artists and archæologists can do, one is driven to despair." Although



COTTAGES NEAR THE WOOLHALL, LAVENHAM, SUFFOLK: BEFORE AND AFTER RESTORATION BY THE SOCIETY FOR THE PROTECTION OF ANCIENT BUILDINGS

condemnation was rather severe, e was certainly some degree of justi- ion for it.* The proportions of the rior were undoubtedly spoilt, though can be certain that this was unavoid- ; but the example which we repro- this week, of cottages outside the lhall at Lavenham, Suffolk, shows e distinctly that the repair of old lings need not imply the destruction ieir æsthetic quality.

this case, the repair led to the dis- ry of a supposed fifteenth-century -front, three bays of which are re- ed near the corner of the building; to the re-instatement of this feature, to the restoration of the door under riginal lintel, is due the sense of faction, of unity, which the second ograph conveys. The comparison ds an interesting study in composi- The earlier photograph is anæmic uninteresting, and has none of the arance of size, spaciousness, and sub- iality which the later one possesses, nor has the overhanging upper-story that sense of weight and importance which, though unchanged, it assumes in the second photograph. This improvement in appearance is due partly to the bold handling of the ground elevation, and partly to the fact that in the repairs diamond panes have been inserted in the windows in place of the crude glass, with the result that the windows immediately take their place as part of the wall surface instead of looking like holes knocked in the wall. The repetition of diamond patterns gives a pleasingly complicated effect, and in comparison the wall surfaces appear broad and untroubled.

On the reverse wall two doors have again been replaced by a third, while a fine broad chimney-stack has displaced the original meagre affair. It can be said, therefore, that the work of the Society upon this building has increased its value both as a business proposition and as an historical treasure.

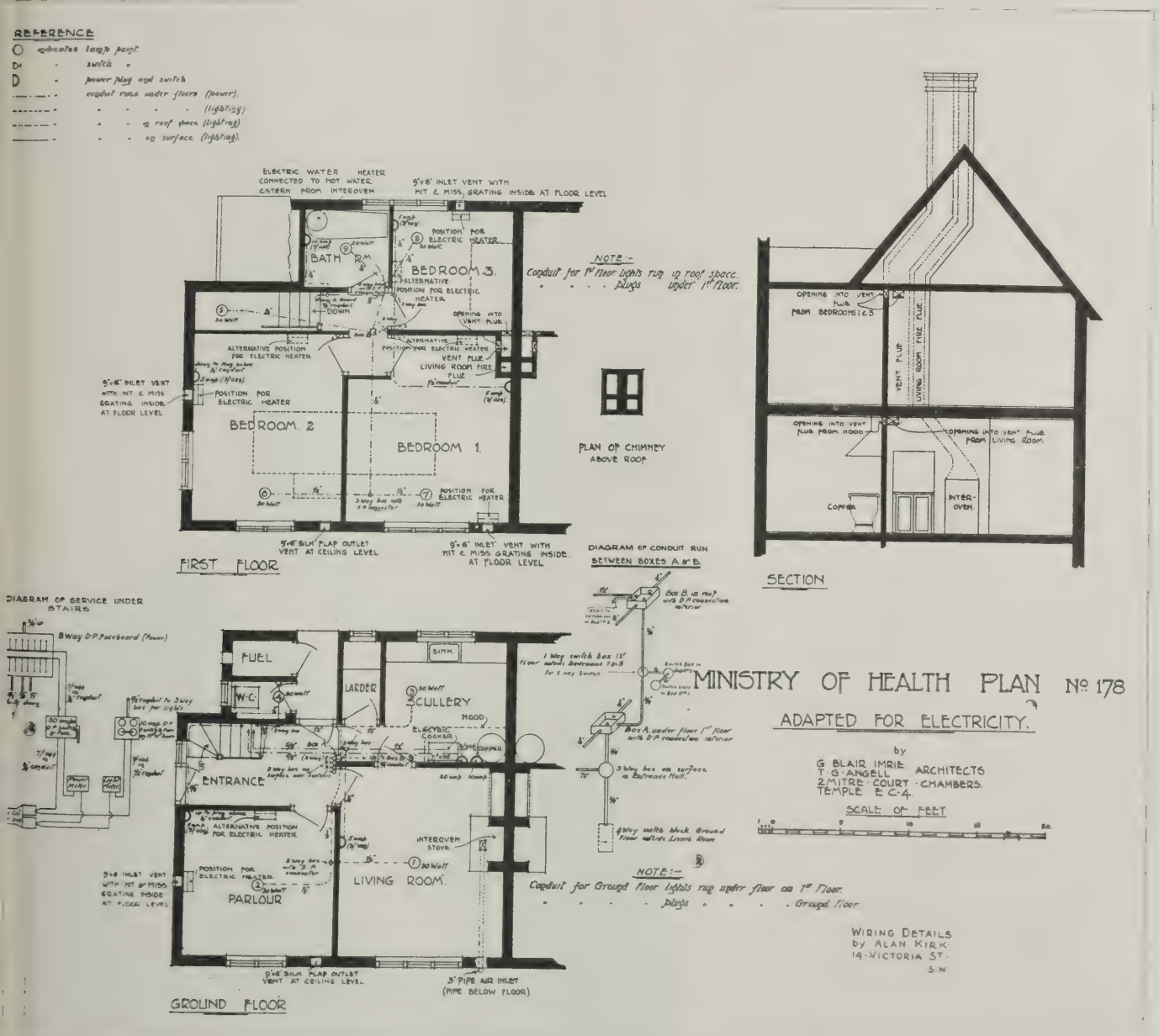
The Society deserves all praise for the continuance of a useful and disinterested work, which should not be allowed to suffer for want of financial support.

* this point see Professor W. R. Lethaby's letter on page 472 of this issue.

Electricity in Working-Class Dwellings

The accompanying plan, reproduced from a very useful report on the "use of electricity in working-class dwellings," prepared by Messrs. G. Blair Imrie and T. G. Angell, architects, for the British Electrical Development Association, shows the arrangement and equipment of a typical dwelling for the use of coal and electricity. In the course of particulars of the equipment by Mr. Imrie it is stated that the living-room is fitted with a stove of the Interoven type, and an electric cookery range is also provided. The secondary method of water heating is by means of an electric geyser, circulator, or heat storage tank, according to local circumstances.

In the parlour and bedrooms plug points for electric fires are provided, but it is generally only necessary to supply one or two portable fires for use in the four rooms as more than two are unlikely to be required at one time. In each room a controlled "hit and miss" inlet ven-



PLAN OF A TYPICAL SMALL HOUSE ADAPTED FOR ELECTRICITY.

(From the "Report on the Use of Electricity in Working-class Dwellings.")

tilator is provided, and also a silk flap outlet ventilator (all except two enter one ventilating flue). Full power of ventilation control is in the hands of the occupiers. The cookers, fires, and other electric appliances have the smallest possible "fire risk," are not permanently built into the structure, and calling for no special flues or foundations, permit the architect to make the best arrangement in regard to the site, natural light, ease of access, and working. The heating appliances being quite independent of flues can be placed in any position most convenient to the user, and economical in relation to the situation of doors and windows. Electrical apparatus for cooking, ironing, etc., can be placed where most handy for water, light, and items of equipment, the use of which is associated with it, so saving in time and reducing "carrying" distances.

The system of lighting used bears a relation to the height of rooms and to the convenience of the occupiers in this respect. Electric lighting can be provided in pendant form without occupying more than, say, 9 in. in depth from the ceiling. Although in these plans the standard ceiling height of 8 ft. 6 in. has been adhered to, it is possible with electric lighting to reduce this to 8 ft. with a saving in the cost of construction.

One or two electric fires will be generally sufficient for the needs of a parlour and two or three bedrooms, and go far to reduce work and dirt in a house even where a coal fire is still relied upon to warm the living-room over long hours and provide hot water. Provision can easily be made for water-heating with a minimum of trouble and heat loss, wash boilers heated electrically are in satisfactory use, and general supplies of hot water are obtained by the employment of either electric circulators fitted into the existing hot-water system of the house, or by storage tanks and cylinders which are automatic in action, being fed through a ballcock from the cold supply, and the contents heated up by electric elements which absorb a relatively small amount of energy over long hours (e.g. through the night), and owing to their construction and heat insulation accumulate the energy in the form of hot water ready for use at any time.

From the point of view of the architect interest in the electrical method largely centres around its influence on designs. The use of this form of energy renders some of the most important internal equipment of the house independent of the structure, so facilitating planning, reducing cost, and making possible many provisions for comfort and easy working. The electric service is readily adaptable to driving small machinery—the employment of ventilating fans, motors for sewing machines, and apparatus for washing clothes and cleaning floors is increasing rapidly. Although these methods may not for the moment become general in the cottage, yet electric power on the estate is likely to find many uses in connection with public work, and one is forced by experience to conclude that its absence from any large aggregation of dwellings will certainly be felt and probably lead within a short time to its introduction. Much of the convenience of the electric service arises from the portability of the apparatus, and the fact that this form of energy is equally available as light, heat, or mechanical power. The connection provided for an electric stove can be used to drive a fan or operate a flat-iron; this flexibility widens the usefulness of the rooms and reduces labour.

Plans are also given in the report to show the comparison between the arrangement and equipment of a working-class dwelling for the use of coal only and coal with gas. The report, which is published by the British Electrical Development Association, price 10s. net, also contains a bill of quantities in connection with the heating, cooking, lighting, and hot-water supply prepared by Mr. W. Gordon Allen, a schedule of the electrical installation by Mr. Alan Kirk, and a preface by Mr. J. W. Beauchamp, Director and Secretary of the Association.

The Concrete Institute's New Secretary

The newly appointed secretary of the Concrete Institute, Captain M. G. Kiddy, whose portrait is reproduced below, has been for the past two and a half years assistant secretary of the Society of Architects. He was educated at Highgate School, and while at school gained prizes in English language and literature, political history, and French. At the age of nine he passed with honou the entrance examination of the Inco porated Society of Musicians. On leavi school Captain Kiddy was for a sho time on the London Secretarial Staff the Buenos Aires and Pacific Railway (Joining the Forces in August 1914, went to France with the London Ri Brigade in November of that year, w wounded, and on returning home to up a commission, subsequently serving Gallipoli, Egypt, and Palestine, and wi a naval section of the Royal Air Forc He was gazetted Captain R.F.C. in 191 and still holds that rank on the reser list of the R.A.F. After the war Capta Kiddy took up journalism—his fam is well known in that profession—a joined the editorial staff of "The Da News." The strain of daily newspap work immediately after leaving the arr proved too great, and Captain Kid resigned, being subsequently appoint assistant secretary of the Society of Arc tects, an appointment he has just vacat in favour of his new one.

Captain Kiddy, who is receiving wi spread congratulations, is admiral qualified for his new post, both experience and by reason of his ve engaging personality, and the Concr Institute is to be equally felicitated up the appointment.



Photo: Vandyk

CAPTAIN M. G. KIDDY, THE NEWLY APPOINTED SECRETARY OF THE CONCRETE INSTITUTE.

The Week's News

Shale Bricks.

hills of spent shale in the Scottish ls are to be converted into bricks.

The Park Huts.

work of removing the war huts St. James's Park will begin shortly. wooden huts are to be sold.

New Baths for Paddington.

dington Borough Council propose ct new public baths and wash-

ed New Swimming Baths for Bath.

City Council has resolved to plans and estimates for the recon- on of the tepid swimming-baths. e provision of slipper baths.

enth-Century Roof Discovered at Yaxham.

ng the renovation at Yaxham , Norfolk, there was uncovered a nth-century roof, on which the colouring still remains.

The Old House of Hereford.

Old House, Hereford, an Eliza- building, used for many years as ch of Lloyds Bank, is to be pre- by the company to the city as a t.

ew Racecourse for Rochford.

proposed to construct a racecourse nford, three miles from Southend- The scheme is well advanced, ions for the purchase of 250 acres have been secured.

Allied Arts.

a for closer union between archi- sculpture, and decorative paint- been made by Mr. Ivor Beaumont Incorporated Institute of British ors.

Kinema Waiting-Room.

ema at Rochdale will have waiting- o hold as many people as the hall n the pictures are shown. Two lls are to be built with similar odation.

Liverpool Painting Work.

pool Housing Committee have in order to relieve the acute yment in the district, to recom- e painting and cleaning of many Corporation dwellings and tene-

East London College.

erable alterations and improve- ve been made at the East Lon- ge. New common rooms for the tudents, additional lecture-rooms, ratory accommodation for the epartment have been provided.

Million Houses Wanted.

resident of the National Federa- ouse Builders, speaking in Liver- erted that this country needs ouses to provide for increasing n, while a million houses require ent.

Brighton War Memorial.

n's war memorial will be a of white Portland stone, facing the Old Steyne and reflected in rs of a pool in front. At the be a shrine and altar table for rings.

Radium Hospital for Manchester.

The Manchester and District Radium Institute, claimed to be the first hospital in this country to be used exclusively for radium treatment, has just been opened. It is the gift of Sir Edward and Lady Holt, who have acquired and equipped a large residence near the infirmary.

Huntingdon Church in Danger.

St. Peter's Church, Upwood, Huntingdonshire, wherein many members of the Cromwell family are buried, is in danger owing to the shrinkage of the soil caused by the drought. The Norman tower has moved, and fractures have appeared in the wall.

Building Trade Boom in Middlesbrough.

A large number of plans have been submitted for the consideration of the Middlesbrough Plans Committee. Specifications included sixty-one new dwelling-houses to be provided by private enterprise, a new Catholic church, and various other smaller renovations, extensions, and alterations to shops, etc.

Irish Marble for America.

The Right Rev. Monsignor Rogers, of the Roman Catholic Cathedral, San Francisco, has entered into a contract for the shipment of £10,000 worth of Connemara marble to be used in the interior of San Francisco Cathedral, now being built in place of the Cathedral destroyed at the time of the great earthquake there.

New Warehouse, Liverpool.

The new Colonial wool warehouse at Liverpool, just completed, possesses a basement, a ground floor, and a top floor, each covering an area of about 16,000 sq. yds. It is electrically heated, fireproof, and provided with quick lifting electric cranes and electric tiering machines.

Effort to Save Astor Building for Public Purposes.

With regard to the statement that the Astor estate office on Victoria Embankment is to be put up for public auction, no definite arrangements have yet been made to that end. The hope is expressed that it will be possible to save the building for some public or semi-public purpose, and so preserve it for all time as an ornament to London.

Cambridge Extension Schemes.

The University has in hand extensive building schemes, the most important of which is the new engineering laboratory. The Marlay Extension of the Fitzwilliam Museum is making rapid progress, and the Molteno Institute is approaching completion. The external walls of the low temperature station are finished, and the foundations for the Sir Wm. Dunn memorial building are being laid.

Croydon Mooring Mast.

The airship mooring mast at Croydon Aerodrome is in process of being dismantled, and the obstruction lights with which it was marked are no longer lighted. The mast, composed almost entirely of wood, cost £25,000. It was 120 ft. in height, and comprised an electric-power plant, with winding-in motors, petrol and water pumps, and electric lamps indicating its outline.

Model Maternity Home at Hampstead.

The Queen has laid the foundation stone of the Queen Mary's Maternity Home now being erected at Hampstead Heath from the designs of Mr. F. Danby Smith, architect. The home, intended to be a model for similar institutions throughout the country, is designed in a simple and homely manner, and will contain from fifteen to seventeen maternity beds. Lord Leverhulme has presented the site.

German Guns for Guards' Memorial.

Thirteen and a half tons of metal from captured German guns will be melted down and used for the Guards' war memorial, which will be built on the west side of the remodelled Horse Guards Parade, and have a frontage of 150 ft. Designs by leading sculptors will shortly be considered by the committee in charge of the memorial, the assessors being Sir Thomas Brock, R.A., and Sir Reginald Blomfield, R.A.

Royal Commission on the Government of London.

The appointment of a Royal Commission on the Local Government of Greater London is announced, the terms of reference being "To inquire and report what, if any, alterations are needed in the local government of the administrative County of London and the surrounding districts, with a view to securing greater efficiency and economy in the administration of local government services, and to reduce any inequalities which may exist in the distribution of local burdens as between different parts of the whole area."

Dublin Custom House.

Owing to the extensive damage it is quite likely that the Dublin Custom House will have to be rebuilt. Externally much of the stonework has been injured; and the statue of Commerce, which has surmounted the dome for over a quarter of a century, as well as a large part of the balustrading, is being removed. Internally there is much debris, and many of the walls are in a dangerous condition. Fortunately all the original drawings of James Gandon are safely preserved in Dublin, so that there should be no difficulty in rebuilding.

New Works for Warrington.

To-day the new offices and extension to the works of the Richmond Gas Stove and Meter Company, Ltd., at Grappenhall, Warrington, will be officially opened by the Lord Mayor of Manchester (Alderman W. Kay, J.P.). Among those present will be Sir W. Peter Rylands (President of the Federation of British Industries), Mr. H. James Yates, F.C.S. (Chairman of Radiation Ltd.), the Mayor of Warrington (Councillor Robert Henshall, J.P.). This extension marks the completion and concentration of the company's new works on one site of 20 acres.

Competition News

Licentiates' and Students' Competitions.

Society of Architects' Quarterly Competition ending October 31, 1921. Measured drawings, consisting of one sheet to one-eighth scale, one sheet to half-inch scale, and one sheet of enlarged details. They must be delivered, carriage paid, at the Society's offices, 28 Bedford Square, W.C.1, not later than 6 p.m. on Monday, October 31, together with the original sketches and notes. A first prize of the value of £6 6s., and a second of the value of £4 4s., if more than ten competitors send in their drawings, may be awarded, varied, or withheld, at the discretion of the Council.

Auckland War Memorial Competition.

The Council of the Society of Architects have received an intimation that the conditions of this competition have been amended to meet the views of all concerned. Members of the Society are therefore at liberty to compete. The closing date has been extended to May, 1922.

For list of competitions open—Hastings music pavilion, Southend pier pavilion, "Daily Mail" labour-saving house, and war memorials for Auckland, Harrogate, and Kirkcaldy—see our issues for October 12, page 456, and September 28, page 391.

Latest List of New Inventions

Latest Patent Applications.

25737.—Ashworth, A.—Walls, buildings, etc. September 29.

25904.—Beck, A. E.—Monolithic building construction. September 30.

25470.—Friedrich, K.—Method for production of a cold glaze upon concrete, brickwork, etc. September 26.

25577.—Tozer, F. M.—Slating. September 27.

24950.—Buik, E. C.—Machine for excavating and stone and concrete cutting. September 20.

25237.—Cornell, A.—Method of building construction. September 23.

25132.—Henderson, J.—Apparatus for moulding walls, columns, etc., in situ. September 22.

Specifications Published.

168945.—Surridge, L. T.—Construction of roofs, huts, portable buildings, and like structures.

169058.—Cinema Combine, Ltd. and Jones, F. — Construction of theatre and like stages or platforms.

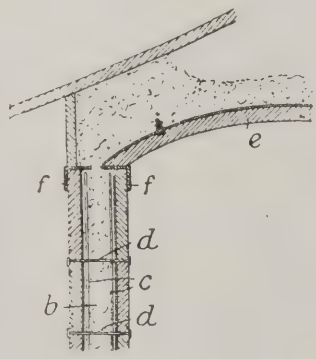
169212.—Roberts, E. W., and Leese, L. F. W.—Building unit and method of constructing buildings therewith.

169284.—Roberts, E. W., and Leese, L. F. W.—Form of shuttering for use in the construction of concrete walls.

Abstracts Published.

166741.—Moulding walls in situ.—Patterson, D. C.—7 Patterson Block, Omaha, Nebraska, U.S.A.—Adjustable centering for use in casting hollow concrete walls in situ in a series of successive layers consists of moulding-plates supported by angles on the top of the wall already moulded and secured by angle uprights in opposed pairs with adjustable spacing bars at tops and other spacing bars having a lever cramp at one end to press centering against the wall. The cores are formed in three sections of plates with top flanges, to which are secured angle-bars back to back, the slots in the angles being of angle formation, so that the distance between the plates may be varied and the distance between the sections in each core. The spaces between the sections in each core serve to allow of the use of ties. The cores are supported on ties already laid, and are positioned at the top by slots in the spacing bar engaging the angles. Corner cores consists of two plates, one angled and one rectangular, each provided with flanges for attachment to the ends of the flanges of the plates. A core stop plate with flange is also provided for use when necessary.

167295.—Slab Buildings.—Pollak, L., 73 Jozsef-utca, Budapest.—A slab building which may be taken apart and re-erected elsewhere comprises double walls, floors, and roof filled with a heat-insulating material such as silicious sinter. The slabs are coated on one or both sides with a hot mixture of 70 per cent. of bitumen and 30 per cent. of paraffin. The wall slabs engage rabbeted pillars and are tied



together by cross-bars *d* which are notched to engage vertical reinforcing bars *c*. The walls are capped with angle-bars *f* or slotted iron plates; the slots allow the filling *b* to be applied and made continuous with the roof or floor filling. The floor and roof slabs *e* are supported by hangers from cross bars.

The above particulars are specially prepared by Messrs. Rayner & Co., Registered Patent Agents, of 5 Chancery Lane, London, from whom readers of this Journal may obtain all information free relating to patents, trade-marks, and designs. Messrs. Rayner & Co. will obtain printed copies of the published specifications and forward on post free for the official price of 1/- each.

Society of Architects' New Council

At a special meeting of the Society Architects, held last Thursday eve the following officers and council elected for 1921–22 :—

President : Sir Chas. T. Ruthen, O.

Vice-Presidents : Messrs. George Paine, Major C. F. Skipper, A. J. Ta Thomas Wallis.

Honorary Secretary : Mr. L. Sylv Sullivan.

Honorary Treasurer : Mr. Edwa Partidge.

Honorary Librarian : Noel D. She

Members of Council—London.— lows : Messrs. Ellis Marlsand, J. He Pearson, Henry Tanner. Meml Messrs. F. G. M. Chancellor and H Robertson. Country.—Fellows : Mr. Vernon-Inkpen. Members : Mr. Knight.

Licentiate Members of Council : M R. D. Coldham and E. Jenkin.

A vote of thanks to the scrutineer proposed by Mr. Ellis Marshall, seconded by Mr. Percy Tubbs.

The distribution of prizes then place, the successful competitors be follows :—

January Quarterly Competition chitectural Design. "The forecour public building." W. A. Funnell don), Student. (Books value £6 6s.

April Quarterly Competition : T "Modern Methods of Building Con tion." C. A. Browne (Birkenh Student. (Books value (£3 3s.)

July Quarterly Competition : Arc tural Sketches. R. D. Coldham (Ba Licentiate. (Prize value £6 6s.)

Travelling Studentship, 1921. tectural Design. J. F. Hampton dock Wood), Licentiate. Price £15 15s.)

Victory Scholarship, 1921 : Fraser, M.S.A. (Wallasey, Che £50 and Gold Medal; and J. H. A.R.I.B.A. (London), £50 and Gold

After the distribution of the Mr. Arthur Davis gave a detaile illuminating criticism of the design mitted for the Victory Scholarship facing his remarks by an explan account of the origin and purpose competition. The Beaux Arts met education was, he said, the only s one for modern requirements, and gradually becoming better under progress, however, was bound to b

Passing on to the drawings them Mr. Davis proved that the jury anything but conservative in their ment, submitting for final comp students whose designs, though thodox, showed any gleam of orig or any depth of knowledge. Emph the necessity for logical plannin speaker showed, by means of a d prepared by M. Chaurés, that liminary analysis of the problem s duced a solution of extraordinar plicity. Mr. Davis urged stude block out the main scheme on th allocating the various departments, proceeding to any elaboration of d

Both successful and unsuccessf signs came in for their full sh valuable and instructive criticism the vote of thanks subsequently pr by the President, Sir Charles R was heartily endorsed by the meet

nesday, October 26, 1921. Vol. LIV. No. 1399

THE ARCHITECTS' JOURNAL & Architectural Engineer

With which is incorporated "The Builders' Journal"



SIR JAMES PENNETHORNE (1801-1871).

Pennethorne, who was born in 1801, was a nephew of Sir John Nash, and studied with Augustus Pugin (the father of the man who shared with Barry the honour of the Houses of Parliament). After visiting France and Italy, he was employed in 1832 by the Commissioners of Metropolitan Improvements (London) to draw up plans for New Oxford Street, Kensington Palace Gardens, Victoria, the Chelsea Embankment, and Kennington and Battersea Parks. Amongst his best works are the building for the University of London, the Museum of Economic Geology, the Stationery Office, Westminster, and the west wing of Somerset House. He also executed many improvements to Buckingham Palace. He died on Sept. 1, 1871.

27-29 Tothill Street, Westminster, S.W.1.

Architectural Details. 14.—Doorway and Wall Treatment of Salon in the Hôtel des Monnaies, Paris



Despite the Imperial "N," this salon, in the austere simplicity of its decorative treatment, is a characteristic example of Louis XVI design. The building was erected by Jacques Denis Antoine during the years 1771–1775.

THE
ARCHITECTS' JOURNAL
27-29 Tothill Street, Westminster, S.W.1.

ednesday, October 26, 1921

Volume LIV. No. 1399

Parliament, Unemployment, and Building Interests

OBVIOUSLY the first duty of Parliament, which reassembled last Tuesday, was to get to work on the twin questions of slack trade and unemployment. On Wednesday, therefore, the Prime nister, with apologies for being a day late, opened a debate he House that has never been exceeded in momentous im-rtance. His mastery of clear diction and telling phrase was re obvious than his power to counteract the conditions described so forcibly. Too much is expected of his izardry," the fact being that the circumstances are beyond control of statesmen, and are not amenable to statecraft. Good government, though it cannot itself effect much, l cannot alter economic principles, can powerfully reinforce l reaffirm them, and can devise means and suggest thods of giving those principles free play and a fair nce of healthy development. That is all that can be sonably expected of statesmanship. Government has tain resources. Will it use them wisely? No other nand upon their skill and energies can be legitimately de. Other demands, however—many of them utterly posterous, and many in direct conflict with each other—put forward so persistently and so overwhelmingly t it is a wonder any Government can stand up against storm.

But certain gusts of a storm may be too violent to be sted, and it cannot be claimed that our Government ays stands firm or keeps calm. Too often it yields to ssure and acts on bad advice. It would be a super-urally strong Government that did not occasionally give and. The presence of Dr. Addison on the front Opposi- bench was evidence of the Government's strategic rement from a position that had become much too hot it—Dr. Addison was thrown to the wolves. Yet there nuch force in the Doctor's question in the "Glasgow ald," "as to whether it was wise for the Government to a stop to the scheme of housing that in so many and rse forms provides useful employment and at the same ministers to an urgent public need." Less dignified his denunciation in the House, on Thursday, of the ernment position, and Sir Alfred Mond's repartees may e been very smart but were not very edifying.

is very poor patriotism to denounce any Government its inability to work miracles; and at the present un-npled economic crisis it is a patriotic duty, not certainly bstain from judicial and sincere criticism, but to assist tily every legitimate effort of the Government to find s and means of amelioration, by getting at the root of ills from which the country is suffering so severely. ppose Ministers bitterly and capriciously, and on merely ical or party grounds, "cuts no ice," as the Americans

or, on the other hand, is it wise to lean on a Govern-t more heavily than can be helped. It is legitimate gh to look to them for information and advice in every nal crisis; it is weak to depend on them for doles and dies, loans and supplies, ways and means that we should be the stronger for discovering for ourselves. Rather we should address ourselves more earnestly to the recovery of that cheery optimism, that sturdy independence and assured self-reliance, of which, since the Peace, we seem to be losing the habit.

The Prime Minister sees clearly enough the danger the country is in of misprising the cognate virtues of self-help and mutual help. It is self-evident that to get the cart out of the rut we must all put our shoulders to the wheel, must unite "to get a move on," work each for all and all for each. On our determination to work strenuously in this spirit prosperity ultimately depends, not on weakly regarding the Government as a kind of deputy Providence. The unemployed now number a million and three-quarters. Why? Is there no work to do? No work to do after all the ravages of a war of unparalleled destructiveness? The position is absurd. Certainly there must be a tremendous amount of work to be done, and why the workless are not forthwith introduced to it is because of "economic conditions" that are more easily understood than described, and that react on each other in a vicious round. A cardinal factor of the situation is that, as the Prime Minister put it, "Great Britain is an exporting country, which before the war exported 40 per cent. of her manufactured goods. But most of the countries which used to do business with us are in a chaotic state. They need our goods more than ever, but how can need be converted into demand, and how can demand be converted into payment?" To that question the Government has an answer: It will extend existing export credits. It will enable overseas countries to buy and Britain to export. There will be a certain amount of release from stagnation. Trade will be stimulated. Consequently (here we come to the interests with which this JOURNAL is most nearly concerned) building and building repairs will be in demand, and employment upon them should immediately become normal, the movement bringing immediate relief to crowds of suffering architects, among whom "resting" (to use a delicate professional euphemism) was never more extensive or more painfully prevalent than it is at this moment. It is monstrous that the Government should find itself driven to the base but seemingly inevitable, but in every way deplorable expedient of sending workers out of the country, when obviously, given goodwill and good management, the proposed emigrants could be profitably employed at home; for instance, was there any sincerity in the recent outcry about shortage of labour in the building industry, and in Sir Alfred Mond's statement in the House last Thursday that "substantially the building trade, from the point of view of building houses, was employed to its full capacity"? If labour is so badly wanted at home, why export it? To prevent, or at least to mitigate, this national disaster of depleting the country of its lusty bone and sinew, employers in the building industry are, as we have stated on a previous occasion, keeping on men at a loss; and their patriotic action should be supported more freely by those who are withholding their hands from

building in the vain hope of profiting by a slump in prices. It is quite possible that some day there will be a further slight fall in prices, but the decline will certainly not amount to much; the reluctant building owner will find that, so far from being worth waiting for, it will involve an ultimate loss. It is stagnation of one sort or another that is causing all the trouble.

Dr. Addison on Housing Policy

Dr. Addison is hot-foot on the war-path. He has begun in the "Glasgow Herald" a series of articles in which he expounds housing policy. At one point he waxes as nearly humorous as a grave doctor of medicine and ex-Cabinet Minister, writing in a Scottish newspaper, can be expected to be. "If," he writes, "stopping a business is to be described as putting it upon a 'more business-like basis,' then the claim of the Prime Minister has substance in it, not otherwise. His only criticism, until his sudden desire to stop the work, was that it was not proceeding fast enough." There was certainly something paradoxical and contradictory about the whole business of national housing; nor does the situation become more clear when Dr. Addison and Sir Alfred Mond reduce the argument to a personal wrangle across the floor of the House.

Mr. Peter Graham, R.A.

Many persons who have admired, at the Royal Academy, the grand landscapes of Peter Graham will be surprised to learn from the obituary notices of him that he began as a figure-painter. His earliest pictures, such as "The Nettle Sting," "Primitive Art," "An Incident in the time of the Covenanters," "The Study of the Interior of a Byre," gave no intimation of his subsequent development as one of our finest landscape painters. It was not until the autumn of 1859 that a holiday on Deeside converted him. It was then and there that he found his *métier*, and next year he sent five fine landscapes to the Royal Scottish Academy, and a year or two later his large canvas "In the Highlands" placed him in the front rank of Scottish landscape painters. He has died at St. Andrews in his eighty-sixth year.

Timber from Sweden

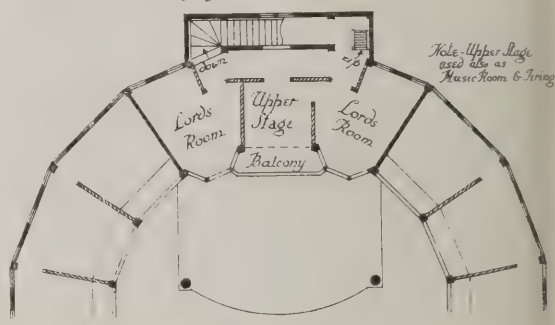
How intimately timber and wall-paper are related does not always strike the casual observer. They are at least first-cousins, paper being made mainly out of wood-pulp. It is very welcome news, therefore, to decorators as well as builders, that within the last few weeks the Swedish wood market has been stabilized—blessed, though unbeautiful word! It is confidently predicted that pre-war figures will be approached by the exports for October and November. Soon, therefore, the architect will be embarrassed as to his choice between wood-pulp and wood-panelling for his interiors, and will feel competent to ask himself the supplementary question, Whether he shall compromise on compo-board? But not till the great Russian markets are stabilized will the hewers of wood be happy, although the wall-paper men may have already found consolation in Canada, whence the importation of wood-pulp should make up for any deficiencies in the supplies from Sweden and Norway.

The L.C.C. and Shakespeare's "Globe"

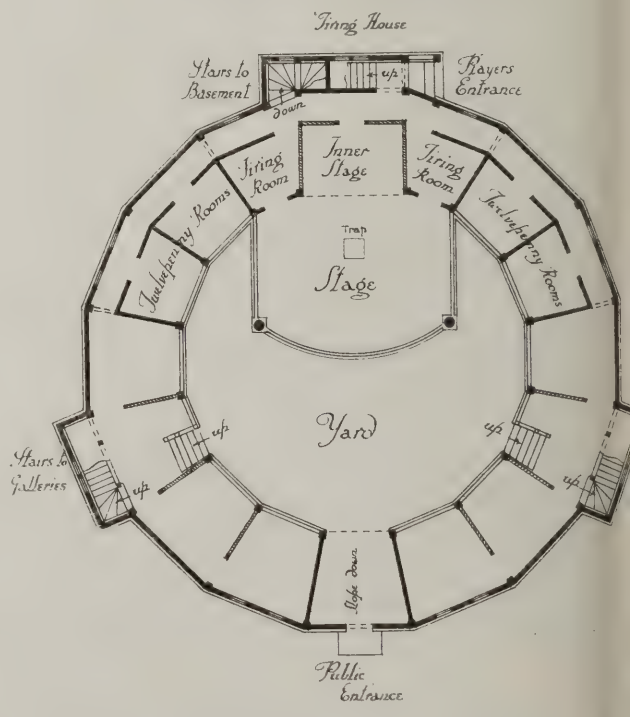
Gradgrind may fret, Bounderby fume, and Stiggins sniff, but, on a reasonable view, the London County Council have done well to publish their interesting pamphlet on the site of Shakespeare's "Globe" playhouse. Hard-headed economists may be placated by the assurance that the pamphlet is sure "to pay its way," and even yield a profit, besides being an excellent advertisement of the enlightened virtues of the L.C.C. True, the point that it has taken so much skilled investigation to determine seemed hardly worth the trouble and expense. Whether the "Globe" memorial tablet ought to be placed on the north rather than on the south side of a narow passage like Park Street does not matter very much, the important point being that it is there at all to mark the precincts of the playhouse whe Shakespeare walked. "Then to the well-trod stage and If Jonson's learned sock be on, Or Shakespeare, Fanc sweetest child, Warble his native woodnotes wild." M Topham Forrest, the Council's architect, makes that tran tion, giving us almost the first really architectural "conj tural reconstruction" of the "Globe." Such interludes the more intensely practical labours of the Council increa the public respect for a body that began its career with frank recognition that the public health has its mental a moral as well as its physical aspects. For this grace first chairman, Lord Rosebery, literary statesman, enlig ened publicist, loving well and serving well the common we will ever be held in grateful memory. Whether the men rial tablet should be on the north side of the street or the south, is, it may be again urged, a minor point, as co pared with the educative and recreative value of call attention in such an impressive way to a fascinating bit London topography. Londoners are in need of su occasional reminders that they are the citizens of no me city, and that the Surrey side's present squalid and mis able aspect does shocking injustice to its joyous memo and traditions.

THE GLOBE THEATRE

Conjectural Reconstruction
by J. Topham Forrest



Plan at Middle Gallery



Plan at Lowermost Gallery



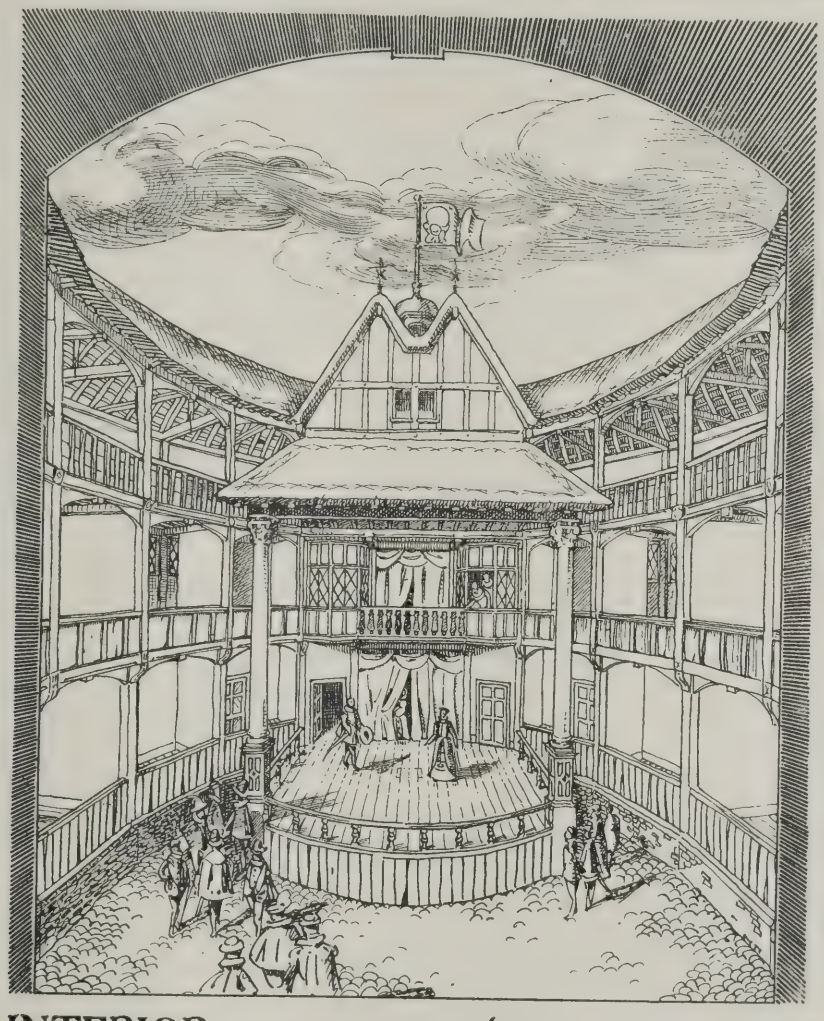
ıe Site of Shakespeare's Globe Determined

The Investigations of the L.C.C.

\OR the moment, the Elizabethan stage is again topical. It is, of course, a subject of perennial interest. What little information about it has meagrely rewarded the researches of scholars is very vague and indeterminate, and is therefore held ore precious. It tempted one or two unscrupulous s to eke it out with forgeries. Take away the Hens- locuments, and the archives are poor indeed.

ortunely with the opening of the Maddermarket memorial should not have been erected on the south side of Park Street, but on the north side; and the Council, justly jealous for the accuracy of its excellent work of indicating by a tablet the position of buildings of public interest, set on foot an exhaustive inquiry, of which the result is now published. The collection and investigation of the historical evidence has been very ably carried out by Mr. W. W. Braines, B.A., a principal assistant to Sir James Bird, the Clerk of the Council. It is quite evident

THE·GLOBE·THEATRE· CONJECTURAL· RECONSTRUCTION



INTERIOR *viewed from* MIDDLE GALLERY

Conjectural Reconstruction by G Topham Forrest

: at Norwich, where there has been a revival of the eatures of an Elizabethan playhouse, the London Council have issued (price 1s. 6d. : P. S. King and d., 2 and 4 Great Smith Street, Westminster) a teresting pamphlet on "The Site of the Globe Play- Southwark." This pamphlet has been prepared : object of setting at rest a question that has arisen ng the position of a memorial tablet put up (at the ion of the Shakespeare Reading Society) to mark of the Globe Playhouse on Bankside, Southwark.

eorge Hubbard, F.S.A., raised the question with the County Council in 1913. He urged that the that Sir James Bird is upholding the humanizing traditions established by his predecessor, Sir Laurence Gomme. It is quite likely that, in this hour of purblind "economy," some attempt may be made to challenge this enlightened policy, and to extinguish all activities that do not admit of a ledger-balance of profit and loss. Should any such sinister attempt at burking be made, all enlightened citizens will strenuously oppose it. We cannot afford to lose what little of sweetness and light the Council has contrived to insinuate into its otherwise sordid and dismal transactions. Besides, the inquiry into the Globe Playhouse site question should eventually yield a handsome

profit in hard cash—the only form in which profit is popularly supposed to be patent to the municipal mind—which is an unfair observation as applied to a goodly number of councillors who thoroughly realize that "man cannot live by bread alone," and that, being in charge of the education of the community within its governance, to take a narrow and perfunctory view of its functions in this respect, reducing them to mere prolusions of pedagogy, would be banal in the extreme. The mean-minded among the councillors and ratepayers, however, will breathe more freely when they observe that a similar pamphlet—that dealing with "The Theatre, Shoreditch," has run out of print.

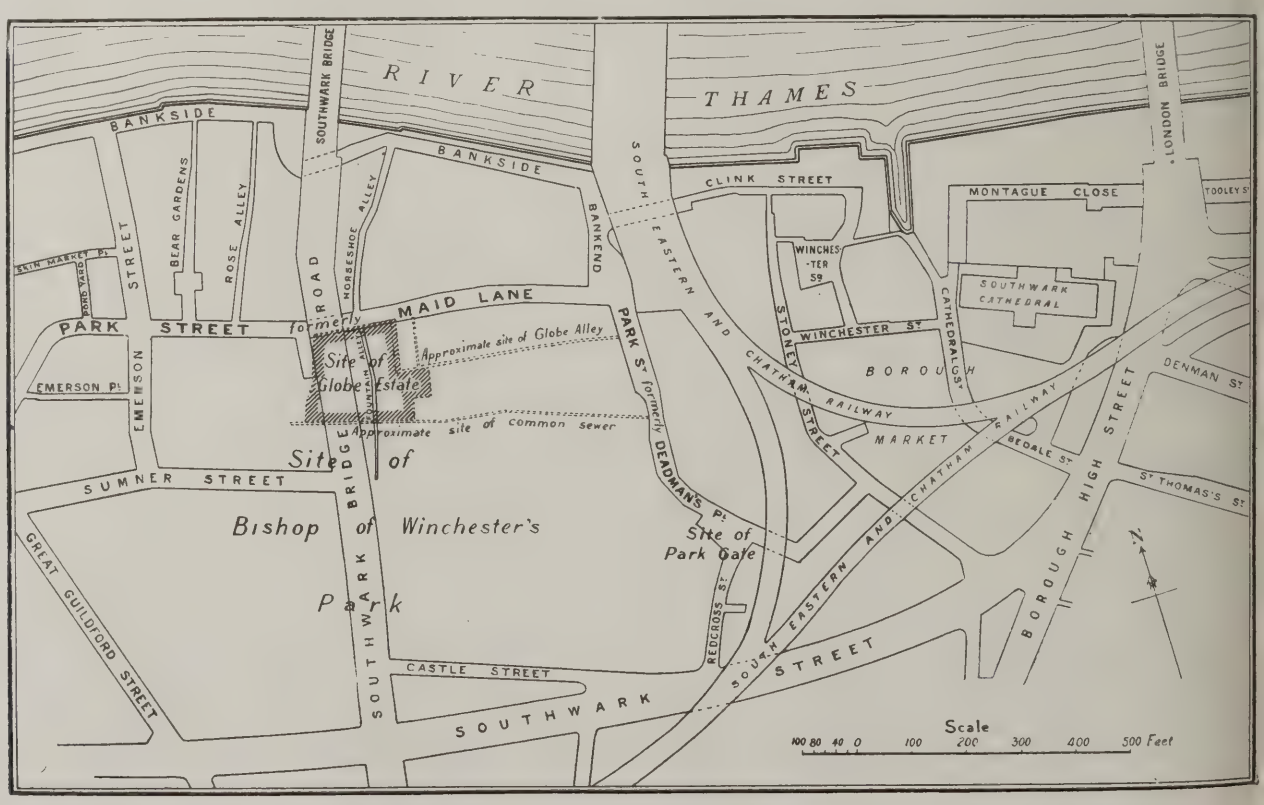
Mr. G. Topham Forrest's accompanying sketch of the history of the Elizabethan stage tells succinctly all that is known about the architecture of the first Globe Theatre. That the theatre was approximately round we have the evidence of Ben Jonson, of the author of "The Merry Devill of Edmonton," and of certain allusions in a ballad on the destruction of the theatre. The timber of which it was built was carted to Bankside from the site of "The Theatre," which had been erected by Burbage in 1576–7 "on that part of the precincts of Holywell Priory within the angle formed by Curtain Road and New Inn Yard, Shoreditch." A serio-comic account of how Burbage, refusing the extortionate terms that his landlord sought to impose for the renewal of the lease, pulled down the building and carted away the materials in spite of armed opposition, is luckily preserved to us in the pleadings of the legal action that arose out of it.

Mr. Forrest has formed the opinion that the Globe Theatre was polygonal rather than circular. The structure being of wood, it seems to him unlikely that the owners would go to the trouble and expense of constructing a cylindrical building when it would have been relatively easy and much less costly to erect a polygonal structure of, say, between sixty and seventy feet in diameter, the straight pieces comprising the framework being simply joined together at the angles. From a distance it would look circular. As for its name, "The Globe," that, Mr. Forrest explains, had nothing to do with the shape, but referred to the sign of Hercules supporting the earth; its inscription being, "Totus mundus agit histrionem."

There is no precise indication of the size of "The Glob In all probability, judging from what is known of its c petitor, "The Fortune," it consisted of three stories. "The Fortune," which being later was probably larger t "The Globe," the stories were respectively twelve, ele and nine feet high. No doubt the stage projected well the auditorium. It comprised an outer platform, surrou ed on its three sides by a balustrade. "Behind was inner stage separated from the front portions by curta usually termed 'traverses.' At the back of this wa door or entrance for the actors—the 'mid-door' of stage directions." Behind was a balcony above the tir house, and the galleries and the stage were roofed thatch. The internal woodwork was probably painte attractive colouring. De Witt noticed imitation marb at "The Swan." Mr. Topham Forrest supplies s excellent drawings showing a conjectural reconstructio "The Globe," inside and out; the plans and section he vides throwing considerable light on the design.

At first blush it seems hardly fair to reveal the conclus at which Mr. Braines has arrived after so much patient laborious investigation. As the whole object of the resea and of publishing the results, is purely informative educative, there can be no object in withholding them they were the *dénouement* of a plot in a play or a n To follow Mr. Braines step by step through the maz data which he has so patiently threaded, would be to re duce the pamphlet nearly *in extenso*. It must be suffi to say that he adduces most powerful evidence of the t of his conclusions that Mr. Hubbard, following Dr. Wal is wrong in assuming that the site of the "Globe" playh was on the north side of Park Street. Briefly, Mr. Bra has adduced overwhelming evidence that "At least of the houses comprised in Judith Brend's jointure (w included 'The Globe' site) were on the south sid Maid Lane [now Park Street], and that at least of these four was on the site of 'The Globe.'" So south side certainly has it, and the memorial tabl rightly placed.

[For the illustrations that accompany these notes are indebted to the courtesy of the London Co Council.]



THE NEIGHBOURHOOD OF THE SITE OF THE GLOBE THEATRE.

122.—Galeries Lafayette, Ltd., Regent St., London : Detail of Entrance

M. Chanut in collaboration with Wm. Woodward and Sons, Architects



The new premises for Galeries Lafayette, Ltd., constitute a notable addition to the great drapery stores of London. In decorative treatment, lighting arrangements, and internal equipment they represent Parisian rather than English ideals, and for this reason will be studied with special interest.

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ew London Premises for Galeries Lafayette

this issue we illustrate the new ondon House—188 to 196 Regent treet—of Les Galeries Lafayette, of . A portion of these premises, for- y occupied by Messrs. Swears and s, Ltd., has undergone extensive ations, and extensions have been e by the rebuilding of adjoining es. M. Chanut, the French architect es Galeries, was responsible for the ior arrangements and decoration, Messrs. Wm. Woodward and Sons the English architects for the general tural work and supervision, in col- ation with M. Chanut.

ie new steel-framed premises now a ground-floor area of more than o sq. ft., and represent in their rate style of decoration, luxurious gs, and carpeting, the most up-to-date of Parisian store. "Half island" -fronts, extending the whole of the nt Street frontage, have been ar- ed to enable the displays to be seen, only from the street, but also from interior of the shop. Decoration of windows is completed by an ornate e ceiling profusely illuminated by en frosted electric light bulbs. The e of the six spacious floors have been l up and decorated to secure the effective display of the stock.

ie electric lighting, run on duplicate s, with a forty-eight hours' accumu- reserve on the premises, involved. running of 250,000 ft. of insulated g—including a special cable to obtain current direct from the power-station and the fixing of about 20,000 lamps.

The interior fittings of the depart- ments necessitated the use of more than five tons of sheet brass, one ton of orna- mental castings, over 32,000 ft. of drawn metal mouldings, and many thousands of feet of seasoned timber. Three express lifts capable of a speed of 300 ft. per minute have also been installed.

The heating arrangements consist of a combined system of warm air and steam radiators. The ground and first floors are heated by means of fresh filtered warm air entering through a number of gun- metal gratings in the ground floor, and the remainder of the building by low- pressure steam radiators. Three low- pressure steam boilers have been installed in the sub-basement boiler-house, serving steam to the heater batteries and radia- tors distributed throughout the building. Special care has been taken in de- signing the plant, and the apparatus has been divided up into a number of sections each under control in the boiler-house, so that the temperature in the building can be varied to suit the external conditions. Fresh air and exhaust fans in the base- ment ventilate portions of the building.

Besides the usual channels of the Post Office lines, the telephone service comprises a system of automatic tele- phones, installed from department to department throughout the management, etc. In addition there are direct tele- phones from fitting-rooms to work-rooms.

Mr. David Hawes, director of Messrs. Fredk. Sage & Co., Ltd., of Gray's Inn Road, undertook the rebuilding and entire equipment of the store, and completed the undertaking in the short period of seven months. Messrs. Sage & Co. also made all the showcases and fittings, which are principally of light oak with brass ornamentations. Messrs. Nicholson & Co. carried out the heating work; Messrs. F. J. Barnes, Ltd., the stonework, the carving of which was executed by Mr. C. H. Mabey; Messrs. Waygood-Otis, Ltd., erected the lifts; and Messrs. Mather and Platt put in the sprinkler installation. The upper floors of the premises will shortly be further ex- tended.

Les Galeries Lafayette first opened a small branch at 99 Regent Street, but the important business obtained by display- ing in London the latest models, simul- taneously with their introduction in Paris, caused the directors to embark upon the new and extensive store. The large workroom and warehouse accom- modation necessary for the distribution and handling of merchandise displayed on such an enormous scale has created addi- tional opportunities of employment in London for a large number of people, 80 per cent of whom will be English. The firm's ideal is that the building should be exclusively devoted to catering for the needs of ladies of taste, and contain a large and continuous variety of models which are being simultaneously shown in Paris.



GALERIES LAFAYETTE, LTD., REGENT STREET: THE SHOP FRONTS
M. CHANUT IN COLLABORATION WITH WILLIAM WOODWARD AND SONS, ARCHITECTS.

Correspondence

How to Revive Public Confidence in Building

To the Editors of THE ARCHITECTS' JOURNAL.

SIRS,—Mr. C. H. B. Quennell's article in your last issue must have been much admired for its vigorous handling of a subject that has hitherto been dealt with rather too delicately in your columns. Only by a plain statement of the bald facts shall we ever gain a hearing for the case against extravagant prices. But it is only fair that the blame for them should be correctly apportioned. Most of your correspondents (Mr. Quennell among them) have been unduly hard on the builder. There is no doubt that some builders, especially those who have been engaged on big housing contracts, have exacted high profits, though it is difficult to blame them for doing so when we remember the encouragement given them by the Government. But with regard to general building work, most builders have been content with a reasonable profit. It is not the building contractor who is responsible for high prices. Indeed, it is perfectly well known that many firms, during the present crisis at any rate, are satisfied merely to cover expenses if only they can find sufficient employment for staffs and equipment.

Who, then, is responsible for high prices? Mainly the manufacturers of builders' materials and their allies, the builders' merchants. Large stocks of materials manufactured or bought during the boom period are still held by makers and merchants who, owing to the slump in building, can now find no market for their goods. Naturally they wish to avoid selling at a loss, and this means that they must hold on to their stocks in the hope of a revival in building. In the meantime the revival refuses to make its appearance, and business is at a standstill. Obviously there will be no revival until there has been a considerable fall in prices. The fall must come first, therefore the next move is "up to" the manufacturers and the merchants. They must cut their losses.

The position has been neatly summed up by a modern economist as follows: "A manufacturer may have a heavy inventory at outrageous prices. If he marks down this inventory he will show a loss. If he holds on to the inventory at its price he will not do any business. He is no better off in the second case than in the first. The mere fact that he charges on his books a value above the real worth of the inventory does not make that inventory worth any more. He is only expressing his hopes in figures."

The application of this little homily in economics need not be laboured. When will the manufacturers and merch make up their minds to set the wheel the building industry again in motion

Yours, etc.,

H.

A Plea for the Unem ployed Painter

To the Editors of THE ARCHITECTS' JOURNAL.

SIRS,—Among the several argume advanced by E. N. B. in his article of week, for urging all and sundry to busy with the paint-brush, is the utte fallacious one that "the painter can be allowed to starve."

To the mere sentimentalist such a ference to E. N. B.'s well-meaning effo on behalf of a highly deserving class craftsmen may seem a callous one. can, nevertheless, be amply justified the circumstances, and one has only apply the argument to other instances realize its unsoundness.

Suppose, for example, it were conten that in order to help starving cabin makers we should all buy furniture we not need, or because the grinders lenses were having a thin time every should, as a matter of duty, wear monocle!

As a matter of fact, painting is just



GALERIES LAFAYETTE, LTD., REGENT STREET, LONDON: VIEW ON GROUND FLOOR.
M. CHANUT, IN COLLABORATION WITH WM. WOODWARD AND SONS, ARCHITECTS



GALERIES LAFAYETTE: MILLINERY SHOWROOM

ng that *must* be undertaken—
r the cost—because it is primarily
ctive measure. At no time, one
s, is it ever undertaken for the
nment it provides, and it may
e be assumed that just as much
as conditions enforce, and no
now being carried out. C. F.

Manchester Royal Exchange Extension

ditors of THE ARCHITECTS' JOURNAL.
—In your issue dated October 12,
notice that upon page 439 you
Plans of Manchester Royal Ex-
Bradshaw Gass and Hope,
B.A., Architects." This is incor-

s. Bradshaw Gass and Hope are
ts merely for the extension of
ilding. The architects of the
ster Royal Exchange were the
essrs. Mills and Murgatroyd,
B.A., of Manchester. The present
n, so far as the interior is con-
is mainly a replica of their design,
h the exterior has been consider-
ered and the style varied.
to notice in the lengthy article on
hange any reference to the original
ts, and to any one unacquainted
facts of the case an entirely false
on of things would be conveyed
unfortunate omission.

J. P. CONSTERDINE.

are obliged to our correspondent
wing attention to an important
from our article, for which, of
Messrs. Bradshaw Gass and Hope
responsibility whatsoever. It
wever, made perfectly clear in the
that the work for which this
ished firm of architects had been
ble was the extension of an
building. If our correspondent
er to pages 434 and 439 he will
clearly stated that the building
"extended, practically doubled."

Economics and the Painter

A week or two ago a contributor to THE ARCHITECTS' JOURNAL pleaded the cause of the unemployed painter. He is apparently a philanthropist of sorts, this unknown gentleman, since he bases his argument mainly on a tender consideration for the painters' pocket, and, as he candidly admits, his cause has, to the man who pays the bill, little save dire necessity to recommend it.

E. N. B. has, I venture to assert, missed the point.

The illustrations which accompanied his article could have given him a hint, and had he been less engrossed with the troubles of the operative he might have devoted more attention to the plight of the property owner, or, rather, of the property owned. True, one has every sympathy with the workless, but what of those who are forced to look on while the outer husks of the buildings they own crumble into decay, depreciate daily in value for lack of the needed attention? What of the man in the street, whose peregrinations will show him little but shabby disrepair, increasing ugliness?

The butchers of Smithfield have proved themselves courageous men. We imagine the Powers-that-be in that place of carcases ruefully contemplating their grimy, rusting market. We can hear their anxious deliberations—to paint or not to paint?—the urging of the progressives, the opposition of the self-styled "economists." The former, it is clear, have won the day, and the outcome of their wise extravagance is seen in a refreshingly clean and hygienic building. The cost may be heavy, but the old proverb concerning "a stitch in time" has not yet ceased to apply.

Smithfield Market is only one of the many big jobs that should be put in hand. Tower Bridge is being painted; its neighbours, not less shabby, might well receive a similar jacketing.

The ironwork which normally adorns Westminster is an untended eyesore. One trembles to think of the condition of less aristocratic regions. A walk down Regent Street reveals dreary vistas of fast crumbling stucco; here is work in abundance for painter and plasterer, too. It is work, moreover, that should claim precedence over any other, if we have any consideration for the amenities of our public places.

Both individually and nationally we are pursuing a policy of short-sighted economy that cannot fail to land us in severe trouble later on. "I'll have it done when things are bit cheaper," says John Citizen, but if he waits much longer it will be a matter of rebuilding—a vastly



GALERIES LAFAYETTE: CUSHIONS SHOWROOM

more expensive process than mere painting. Meanwhile he suffers, the man in the street suffers, business suffers most of all.

Opening the Decorators' Exhibition in Manchester, Mr. Cantrill, the Federation president, claimed an important place in the community for his craft, and dwelt upon the psychological mental effects of form and colour. This is as it may be, but we do know the refreshing stimulus afforded by simple cleanliness and perfect repair.

Should not those who can in any way afford it benefit both themselves and *ces autres* by setting their house in order, to their own great comfort, and the betterment of British industry?

EDWARD TWYSDEN.

A Fragment of the Parthenon Pediment

It is interesting to note that the head of the fourth horse in the pediment of the Parthenon, which has been missing for over a century, has recently been presented by Sir W. Clay to the Department of Greek Archæology at University College. Authorities surmise this head to be a copy of the original which, it is conjectured, fell from its somewhat precarious position about the beginning of the second century B.C. This head was replaced by the present copy, which, although inferior in technique, presents evidence of close study of the original. The head recently brought to light has been in England for over a century, and evidently formed part of the antique marbles selected for transportation to England by Lord Elgin.

The Development of Smokeless Fuel

Architecture will benefit greatly by the invention of the smokeless fuel "coalite," which is made from a mixture of coking and non-coking "slack"—the latter almost a waste product, often left in the mines as not worth bringing to the surface. That inky-black smoke belched forth from the factory chimney and its twin culprit (in a lesser degree), the domestic grate, which so long has been allowed to deface our buildings, may soon become a thing of the past.

The problem of eliminating black smoke has, in my opinion, been solved by the production of a smokeless fuel. This success has been achieved by the Low-temperature Carbonization Co., Ltd., at their plant at Baruch, Barnsley, which, by their courtesy, I had the pleasure of inspecting a few days ago. The magnitude and importance of this achievement is almost beyond comprehension, for, in the words of the Chairman of Directors, Major C. G. C. Hamilton, M.P., "this little plant is going to be the nucleus of one of the biggest developments the world has ever seen."

The plant at Barnsley is the culmination of twenty-one years' continuous work in the face of almost incredible difficulties. It has involved the erection of over forty different types of retorts, and the experimental carbonization of over 200,000 tons of coal. This has been done at a cost of £1,000,000. Now, it is maintained, all the mechanical difficulties which have stood in the way of production of a smokeless fuel as a paying concern have been overcome.

The valuable properties of coalite are well known; the only difficulty has been to make it. It is a bright, crisp, clean, porous solid, which burns with a cheerful fire without smell, but with the emission of a great amount of radiant heat, and entirely without smoke. From the point of view of household fuel the radiant efficiency of the ordinary average fire is 22–24 per cent., and taking into account the small amount of convected heat and the warming of the brickwork surrounding the grate, the total efficiency is probably about 30 per cent.

Since household grates heat chiefly by radiant heat, coalite is a fuel of the greatest value, as the radiant efficiency of a coalite fire is very high, about 35 to $37\frac{1}{2}$ per cent., making a total efficiency of about 45 to $47\frac{1}{2}$ per cent.

After taking everything into consideration, the different qualities of household coal on the market and the different types of grate in use, one ton of coalite on a conservative estimate is equal to $1\frac{3}{4}$ tons of coal.

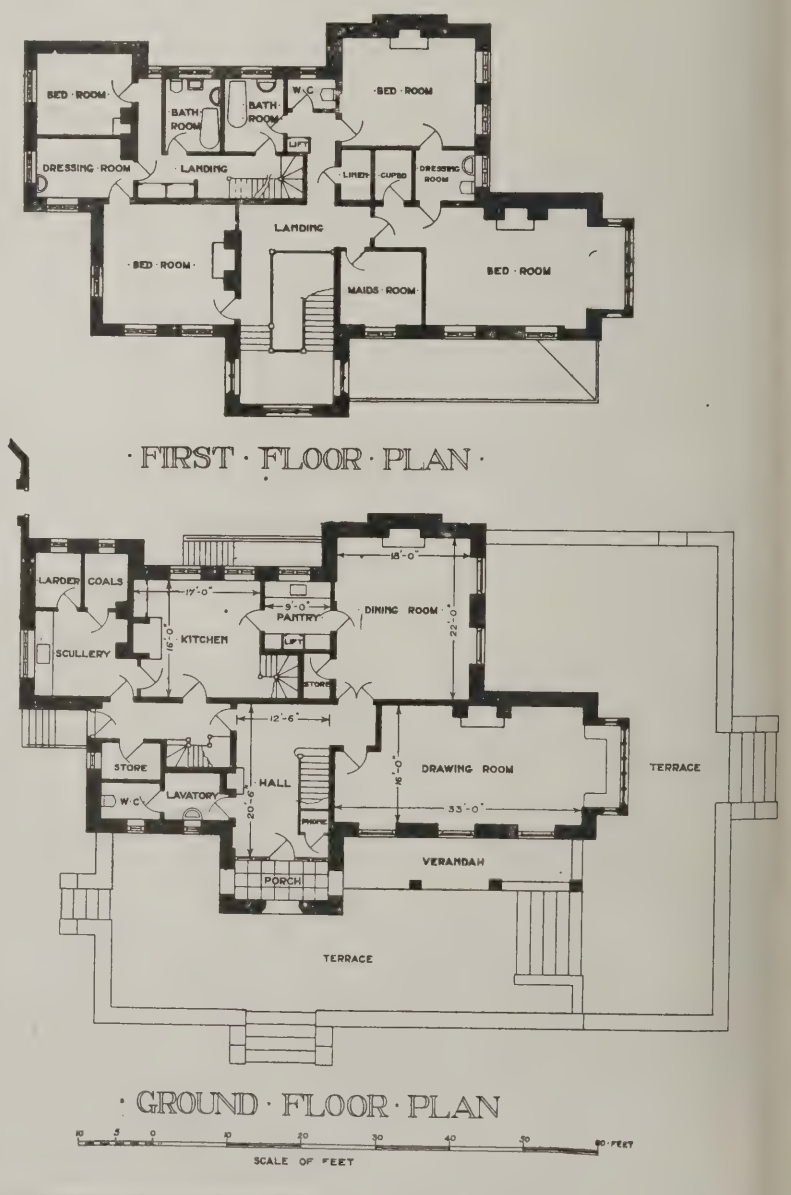
It is much better suited as a household fuel than coal, even apart from the greater radiant heat. Being smokeless, it follows that chimneys never need to be swept, and there is no liability of damage to decorations, as is the case with and a "smoky flue."

The result is an industrial triump British engineering of the greatest nitude, sufficiently indicated by th that it means in the future the con abolition of black smoke, which costs us £40,000,000 per annum; an provision (from the by-products) f our requirements of motor spirit, and lubricating oil, together with necessary fixed nitrogen (sulpha ammonia) to enable us to cultivat soil of our own country.

T. SUMNER SMITH, M.Q.

House at Bournemou

This house is constructed of Sw stone rubble walling, backed up with crete, and is believed to be the fi be erected of this material in conjun with hollow walls. The stone was su by Messrs. Burt and Burt, Swanage. chimneys were built with Collier's hand-pressed facings, and Messrs. C supplied the steel casements. The eral contractors were Messrs. G and Harding, Bournemouth. Mr. Sy Tugwell, F.R.I.B.A., was the archite



HOUSE AT BOURNEMOUTH. SYDNEY TUGWELL, F.R.I.B.A., ARCHITECT

Modern Domestic Architecture. 31.—House at Bournemouth

Sydney Tugwell, F.R.I.B.A., Architect





In this house, which has been completed since the war, effective use is made of local materials, the walls being of rubble in conjunction with Swanage stone backed up with concrete. A notable feature of the design is the terrace approach, which provides an admirable foreground to the house, with its mullioned windows, well-proportioned roof, and grouped chimney stacks.

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v York's Projected New Bridge

; York has planned to build a bridge the Hudson River, which, though he longest, will certainly be the t bridge in the world. Built on land of Manhattan, and separated the mainland by a river the best f a mile wide, New York's transport ms are great. According to "Every- Science," by whose courtesy the ation is reproduced, a road tunnel the Hudson is also in contempla- and the motive for the magnitude new bridge is declared to be not a cular love of record-breaking, but a l economy. The bigness of this (apart from its length, which phy decided) will be due to the fact n it will be concentrated a railway , a vehicular bridge, a footbridge, tramway bridge.

planned the bridge will be in all ft. long, divided into two shore each 1,710 ft. long, and a central of 3,240 ft. Including the abut- or anchorages the length is 7,460 ft. ridge itself will be double-decked. pper deck, 220 ft. in width, will be d into a motor and vehicle road in iddle, 155 ft. wide (broader than way), with a tramline on either side, utside these again two footways 17 oad. Below the roadway, on the deck, will be the railway bridge, en lines of track.

spite of the immense weight that all mplies, the new bridge, like the ng Brooklyn and Williamsburg es, will be of the suspension type. roadway and railway of the Hud- iver Bridge will be suspended from teel cables, two on either side, each consisting of eighty lines of eyebars arranged in three banks and enclosed in a tubular bronze casing, 15 ft. in diameter.

Suspending the bridge results in the inclusion in the design of the two architectural features, the towers and anchorages. To gain sufficient height to give the suspending cables the proper curve the towers will be 840 ft. high. Externally they are of granite, but the stonework is merely a covering for the real structure, which is of steel. Each tower will contain 35,000 tons of steel, and each will be 48 ft. higher than the Woolworth Building. They are 400 ft. broad at the ground level, tapering to 200 ft. at the top.

The function of the anchorages is to take the horizontal pull of the cables, which in this bridge will amount to 250,000 tons. They will be held down at each end by a mass of masonry measuring at its base 400 ft. in length, 375 ft. in width, and 220 ft. high, and pierced by three lofty arches to admit the road and footways. Superimposed upon these anchorages it is designed to place the bridge's most novel feature—blocks of office buildings. On each anchorage there will be two rectangular buildings, 250 ft. broad and 70 ft. wide, having a space of 100 ft. between their inner faces. They will be 280 ft. high, so that with the "ground" floor 220 ft. above the road the roof will be 500 ft. up. Let out in offices, these four anchorage buildings will help to replace the buildings that will have to be pulled down to make way for the approaches, and will form a source of revenue for a maintenance and repair fund.

The immense scale of the bridge and the complicated functions for which it is designed are admirably suggested by the perspective drawing reproduced below.

The Higher Buildings Controversy

Will the London of the future have higher and more commodious buildings? Since the Building Act Committee of the R.I.B.A. took up the matter two more combatants—the Drapers Chamber of Trade of the United Kingdom and the Incorporated Association of Retail Distributors—have entered the field.

It will be remembered that the Building Act Committee was appointed by the Council of the R.I.B.A. to consider the reform of the London Building Acts, more particularly with regard to the question of higher buildings, and buildings of unlimited cubical content. Eventually this committee submitted specific suggestions to the London County Council Building Acts Committee, for modifications in the application of section 47 of the London Building Act, 1894, and of the regulations under Part III of the London County Council (General Powers) Act of 1908.

Section 47 provides that a building (not being a church or chapel) shall not be erected to a greater height than 80 ft. (exclusive of two stories in the roof and of ornamental towers, turrets, or other architectural features or decorations) without the consent of the Council. Further, the regulations made by the Council on February 22, 1910, under Part III of the Act of 1908, provide among other things that a building of the warehouse class in respect of which consent is required to the provision of additional cubical content beyond 250,000 cubic feet shall not exceed 60 ft. in height measured from the pavement level to the upper surface of the floor of the topmost story, and that the floor area of any division or cell of such



PROJECTED NEW BRIDGE ACROSS THE RIVER HUDSON, NEW YORK.

building shall not exceed 20,000 sq. ft.; but the regulations also provide that they may be varied as the Council thinks fit.

After discussing the matter with the Committee of the Royal Institute and the Fire Brigade Committee, the London County Council Building Acts Committee decided to continue the present practice of dealing on its merits with each case submitted to the Council.

Steps are being taken by the new combatants to secure an extension of the present limits upon the height of buildings from the street level. Strong views are also expressed against the present restrictions on the internal remodelling of stores, which it is pointed out not only detracts from the internal appearance, but in the busy departments leads to considerable confusion and congestion.

Both sides of the question have been freely discussed in our Journal, and now that new forces have joined the movement the profession will await the decision of the London County Council with renewed interest.

Details of Science and Technical Buildings

The interesting details of a photometer-room for an electrical engineering laboratory, illustrated in this issue, form the ninth of the series of drawings of science and technical buildings, which have been specially prepared for this Journal by Messrs. A. W. S. and Kenneth M. B. Cross. The general arrangement of the room and fittings is seen in the small-scale plan illustrated below. The photometer room is lighted from the laboratory by windows provided with special movable shutters and light-proof blinds, so that complete darkness can be secured when desired. The spring blinds run on tight wires secured top and bottom, and pass between two thicknesses of black felt, as shown in the detail drawings. They are held in position at the bottom by a thumb-bit. The movable light-proof shutters, which are supplied as an additional precaution against the penetration of light into the chamber, are fixed by twin buttons at the window-heads and sides. The windows are fixed, and all woodwork is painted dull black.

The "Guy Fawkes" Ball

A muffled "Guy" holding a lighted torch in front of a huge barrel of gunpowder. is the outstanding feature of a tastefully designed poster issued by the Architectural Association in connection with the Fancy Dress "Guy Fawkes" Ball to be held at the R.I.B.A. galleries on November 4. Dancing will take place from 9 p.m. to 5 a.m. Tickets 15s. each, students' tickets 10s. 6d. each, may be obtained from the Secretary, R.I.B.A., 9 Conduit Street, London, W.1; The Society of Architects, 28 Bedford Square, W.C.1; The Architectural Association, 34–35 Bedford Square, W.C.1; or from the Honorary Secretary of the Dance Committee (Captain M. G. Kiddy), 296 Vauxhall Bridge Road, S.W.1. Telephone: Victoria 2112. All profits derived from the ball will be devoted to the funds of the First Atelier and Architectural Association Atelier for the furtherance and development of architectural education in Great Britain. Fancy dress is compulsory for gentlemen, but they may wear Venetian cloaks or dominoes over evening dress, and these will be obtainable in the cloak-rooms. Representatives of a well-known firm of theatrical costumiers will be in attendance to assist in "make-up," and will also have a supply of fancy-dress costumes available for use if required. Half-masks will be worn until midnight, when they will be removed upon a given signal at the death of Guido Fawkes.

Soldiers' Graves in France

Mr. Charles Holden, who is associated with Sir Edwin Lutyens, Sir Reginald Blomfield, and Mr. Herbert Baker in the work of the British Graves Commission, has recently returned from a tour of the ground, which includes about 100 cemeteries.

"Three sample cemeteries were designed first of all," he says, "and the remainder are being built on similar lines. Even in the smallest there will be all permanent headstones, and the cross designed by Sir Reginald Blomfield bearing a bronze sword, the memorial which is known as 'the Cross of Sacrifice.'

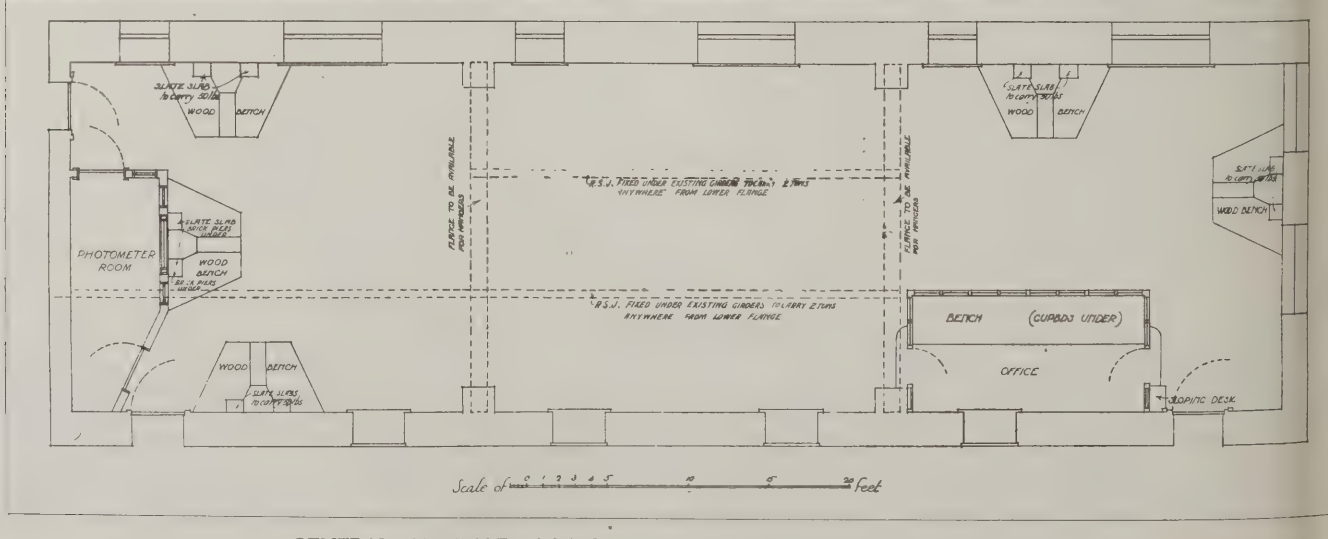
"In most of them there is also the Stone of Remembrance or 'Great War Stone,' a handsome monolith which will contain the records of the cemetery has been the idea of the architec build these cemeteries with a sen dignity and permanence. Portland is used, and concrete foundations ar for the headstones to avoid sinking.

"A fine staff of gardeners are all the time, as well as the twelve tects who are supervising the con tion of the work on the spot. No is being spared to make these great ing-places attractive. On each of th monoliths which Sir Edwin Lutyen signed will be placed the inscri 'Their name liveth for ever more.'"

Recent War Memoria

The memorial at Orpington (see 507) is situated on a small triang shaped piece of ground at the junct the main Sevenoaks Road and Station Hill Road. It consists cenotaph in Portland stone, triangul plan, with the corners canted off, ea which terminates with a base, on is a replica in lead of Alfred Stevens's The names of the Fallen are record the three panels in incised lett Above the panel on the Sevenoaks front is carved the arms of the Cou Kent, while on the two remaining in a corresponding position, is a cross. The cenotaph is 17 ft. high stands on a trinagular-shaped area in York stone and surrounded w granite kerb. The contractors fo work were Messrs. Farmer and Bri and the lions were supplied by M Thomas Elsley, Ltd. The sub-contra for the concrete foundation work Messrs. Peaster, of Swanley Junc Mr. Heaton Comyn, F.R.I.B.A., wa architect.

The County of Pembroke War morial at Haverfordwest is execut grey Forest of Dean stone. On the sides are bronze panels bearing th scription and names of the fallen. monument is surmounted by the dragon. The bronze work was exe by Messrs. Blunt and Wray, and the carving by Joseph Armitage. The ge contractors were Messrs. Thomas M and Son, Haverfordwest. The m ment was designed by Messrs. Oswa Milne and Paul Phipps, architect London.



GENERAL ARRANGEMENT OF PHOTOMETER ROOM AND FITTINGS.

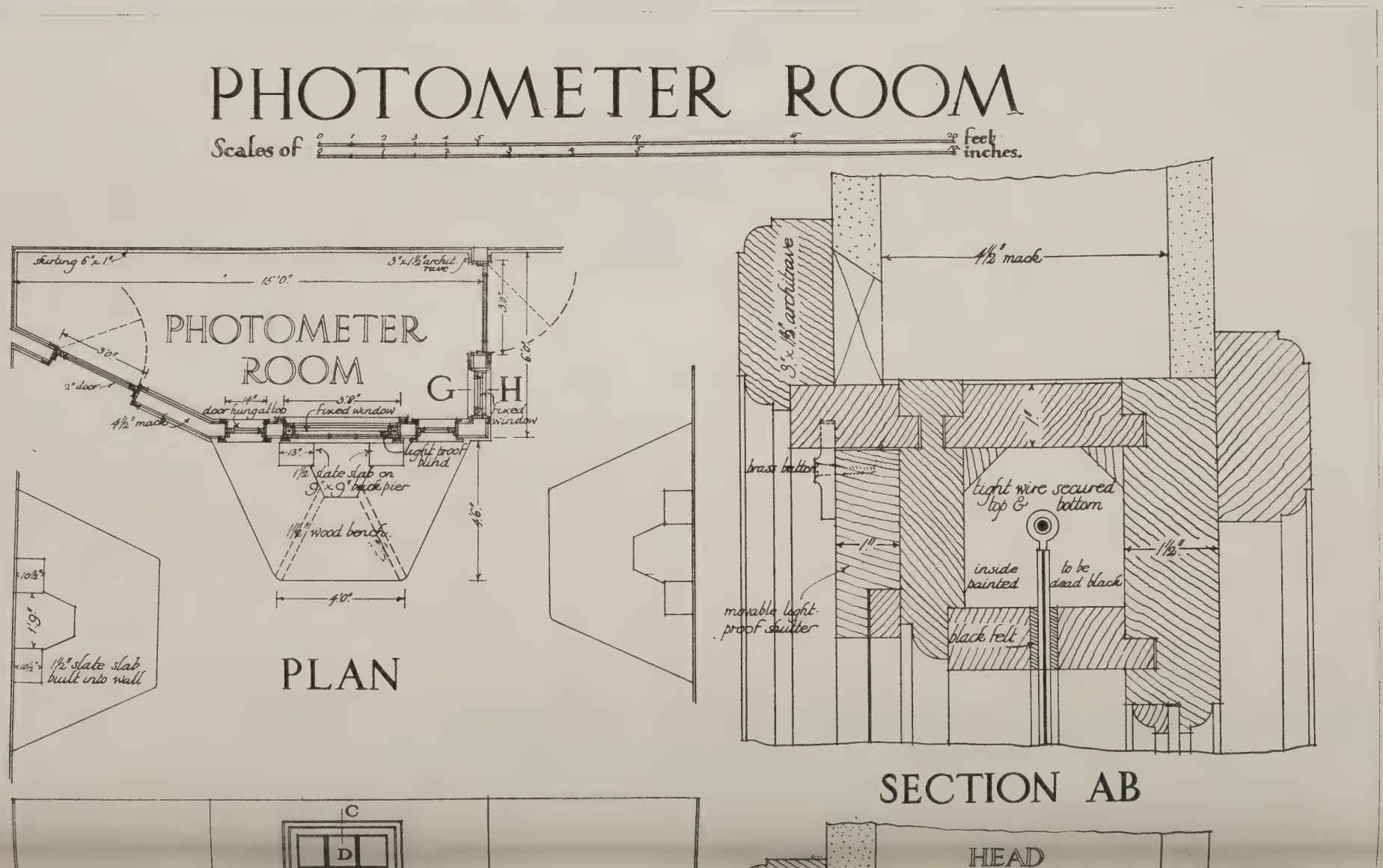
(See double-page plate.)

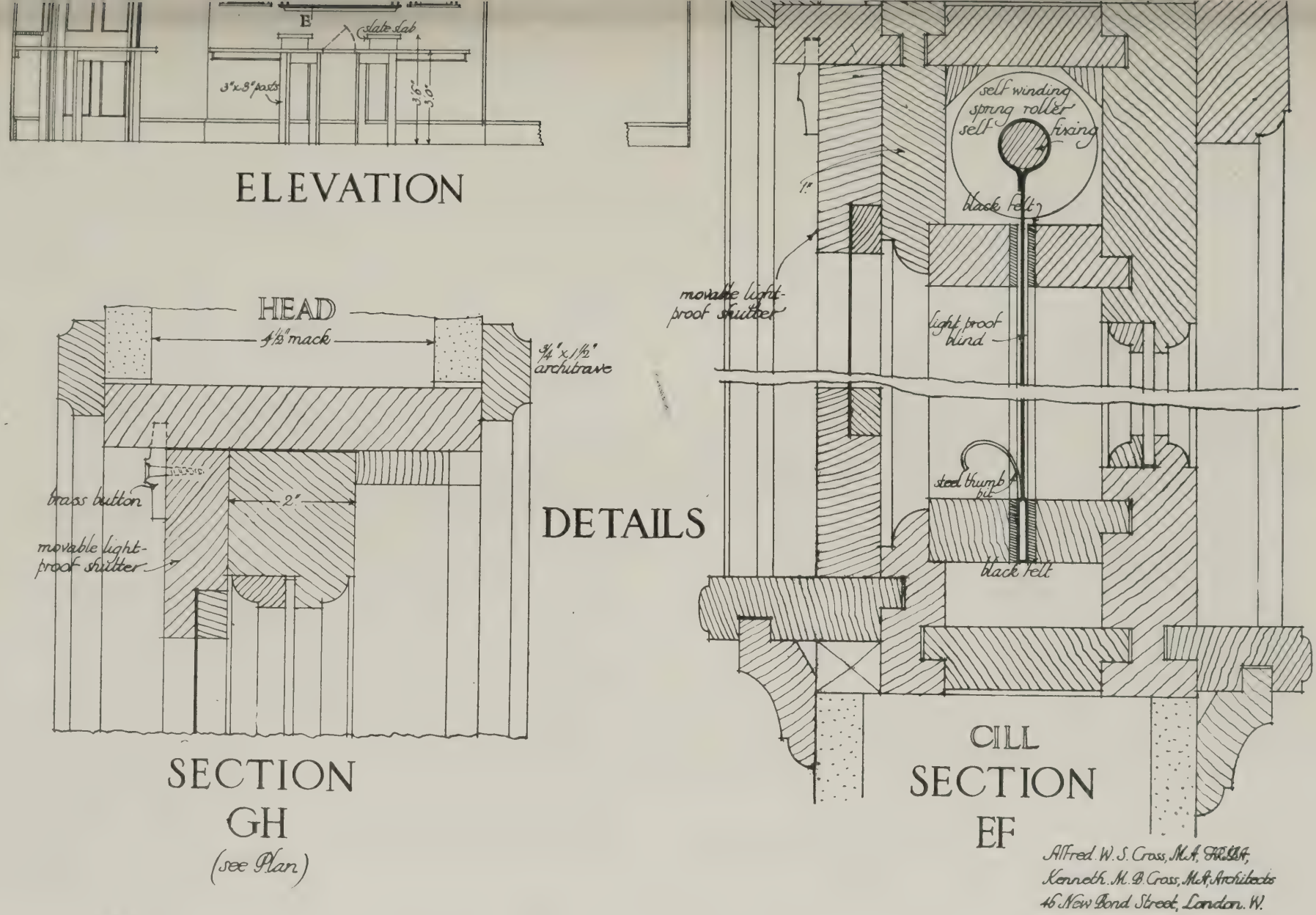
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Practical Notes for Architectural Draughtsmen (Series II) Technical Schools and Science Buildings.

9.—Photometer Room

A. W. S. Cross, M.A., F.R.I.B.A., and Kenneth M. B. Cross, M.A., Architects





The photometer-room of a technical school or science building is lighted from the laboratory by windows provided with special movable shutters and light-proof blinds, so that complete darkness can be secured when desired. A description of the working of these details is given on page 502.

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Heaton Comyn, F.R.I.B.A., Architect



Milne and Phipps, FF.R.I.B.A., Architects



The memorial at Orpington (left-hand illustration) consists of a Portland stone cenotaph, 17 ft. high, triangular on plan, with the corners canted off, each terminating with a base on which is a replica in lead of Alfred Stevens's famous lion. The County of Pembroke war memorial at Haverfordwest is in grey Forest of Dean stone, with four bronze panels bearing an inscription and the names of the fallen. Further particulars of both monuments are given on page 502.

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Magazines of the Month

A Literary and Pictorial Digest

N THE CONTEMPORARY REVIEW for October Dr. Addison discusses the question of "The Redemption of Slums.' wo years ago," he says, "it appeared if this country had at last made up its nd to undertake and pursue, with atever variations of method experience ght suggest, a steady and determined ort to remove the evil features of the sing conditions of so many of our ple. The experiences of the war had isfied even the most reluctant that bad sing produced extensively disabling sical and social consequences. The upt stoppage of a scheme of work ich had been deliberately adopted for least a period of five years, and the stitution for it of a block grant of o,000 to meet the needs of the whole ntry in respect of bad houses, can readily be shown, as already it is being found to be little better than the substitution of a sop for a policy." Dr. Addison then shows, by taking a particular instance, how grotesque this proposition is. "In the City of Leeds there are 72,000 houses built back-to-back in close parallel rows, without through ventilation and a circulation of fresh air being possible. An examination of these houses shows that 12,000 of them are fairly substantially built, and have 15 ft. of space between the front of the house and the road. They also have a separate w.c. entered from this space. These are the best houses of the 72,000. The second group consists of 27,000 houses built in blocks of eight. They back upon other houses and open directly on to the street. Between each pair of blocks there are sanitary conveniences for the inhabitants of each of the two groups of eight houses. In order to get to these places the people have to go along the street, as there is no garden or court of any kind attached. These are the second best houses. What of the rest? They consist of 33,000 houses built back-to-back in long, continuous rows, opening directly on to the street, and crammed together at the rate of 70 or 80 to the acre. The sanitary conveniences and the houses themselves are so atrocious, that we are informed that it is difficult to suggest any satisfactory method of dealing with them short of complete clearance." And under the present scheme the share of the City of Leeds of the £200,000 grant would be about £4,000!



THE HIPPODROME: A SCENE FROM THE FILM VERSION OF SARDOU'S "THEODORA."

From "The American Architect and Architectural Review."

THE ARCHITECTURAL REVIEW contains some delightful drawings and etchings by Francis Dodd, a second article by Professor A. E. Richardson on "Ampthill, Bedfordshire,"—the sixth of the "Charm of the Country Town" series—and some examples of M. A. Pergolesi's decorative furniture and interior work in the Adam manner, with a discussion by Mr. W. S. Sparrow on his relations with Robert Adam. Mr. A. M. Fletcher also contributes an article on "South-Western France and Albi," in which he says, "Albi is Albi, and not any other town in Italy or France, by virtue of one possession—its cathedral. . . . The old builders left it incomplete, carried the walls no higher than the tops of the windows, and clapped on a low-pitched roof with broad eaves at that level . . . but the tie-beams pressed upon the vaults and threatened them with collapse." César Daly, however, repaired the vaults and tried to "finish the unfinishable." He raised the walls 20 ft., crowned them with Gothic cresting, and "surrounded the apse with turrets of an appalling ferocity. Time removed César, and the new generation his cresting and turrets. They finished the wall with a thick, level band of stone, and replaced his seven pepperpots by three of a tempered clumsiness. But the majesty of the original design has vanquished the freaks of French restorers, and the pink brick elephant of a building, in spite of them all, still stirs you with awe and reverence, almost with terror. The exterior is bare to austerity, a sort of classic Gothic, making its effect at one blow; 120 ft. sheer rises the brick cliff that covers the transverse walls which take the thrust of the vaults. But a hint of the wealth within is given by the fortified gateway, the flight of steps, and the great stone baldaquin porch of sixteenth-century Gothic, by which the cathedral is entered half-way along its southern flank." The illustrations of this cathedral are magnificent.

IN THE NINETEENTH CENTURY Captain G. S. C. Swinton, of the L.C.C., compares the advantages of Holland Park and Bloomsbury as sites for the new London University centre, and produces overwhelming arguments in favour of the selection of the Holland Park estate.

THE REVIEW OF REVIEWS has an article on "Rebuilding Ruined France: A Successful Experiment in local Finance," by

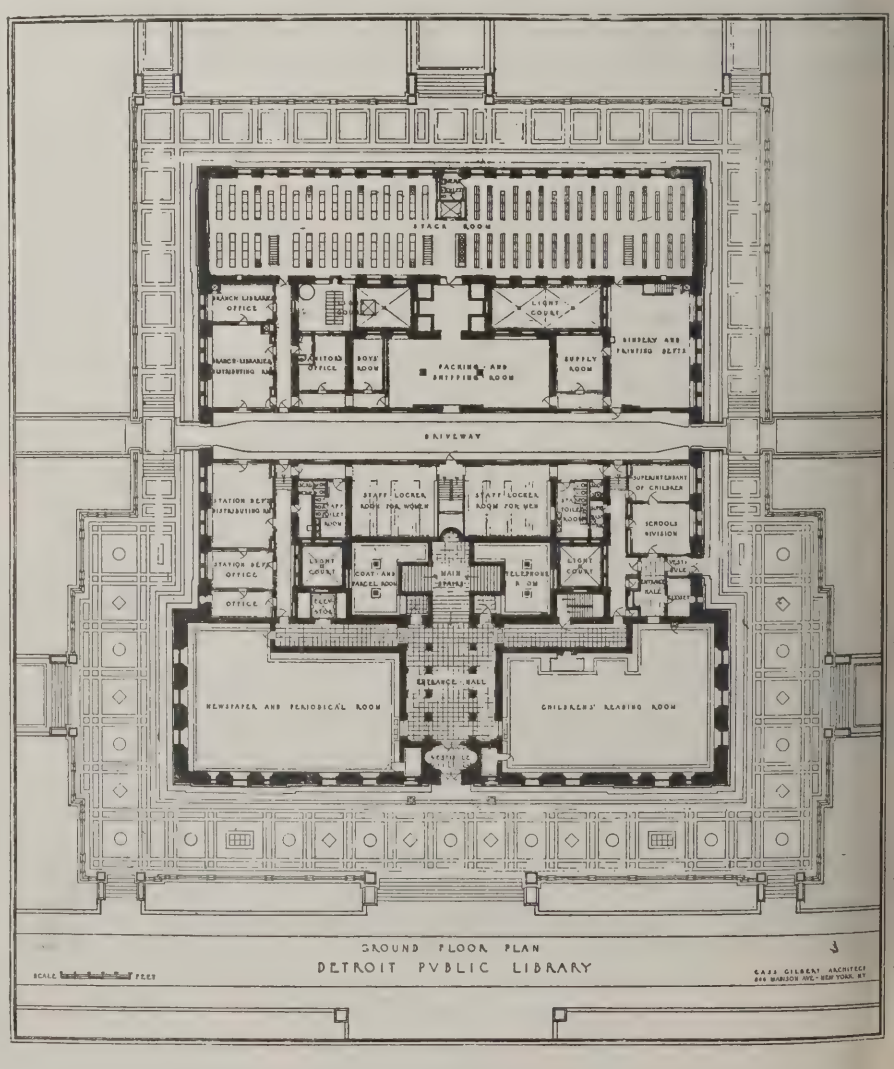


PUBLIC LIBRARY, DETROIT MICH. CASS GILBERT, ARCHITECT.
From "The American Architect and Architectural Review."

Denis Gwynn, showing by what methods the various devastated towns have raised the loans necessary to carry out rebuilding operations.

COUNTRY LIFE has articles on "Bramham Park, Yorkshire"—a striking house of the Queen Anne period; "Highhead Castle, Cumberland," "Over Frays, Uxbridge"—a small house by Mr. C. Williams-Ellis—and "The National Institute of Agricultural Botany," by Mr. Morley Horder.

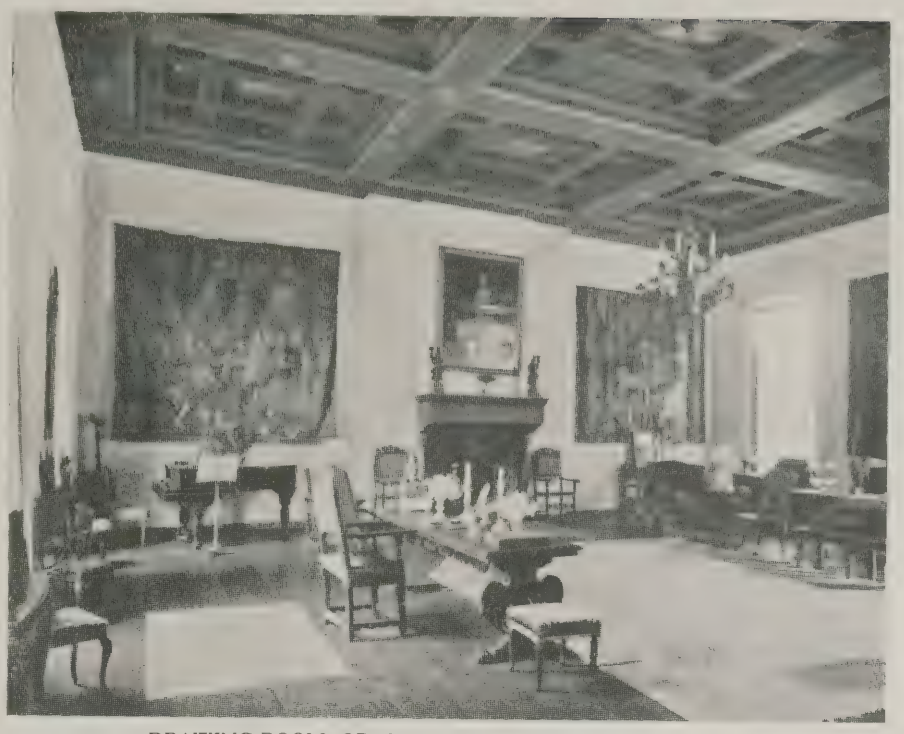
In THE BUILDER Professor W. R. Lethaby suggests that to start new students at the architectural schools on a kind of "planning game," would be much more interesting and useful than giving them the "Orders" to copy out. This game "might be quickly translated into constructive planning," and from the preliminary planning studies students could "pass to what may be known of the modern French aptitude for packing rooms together in an orderly way." The article is entitled "Planning, Composition, and Block Form," and, after dealing with the jargon of the schools, Professor Lethaby quotes a French review on block-form: "Architecture has nothing to do with styles. Louis XIV, XV, XVI or Gothic are like a feather in a woman's hat—sometimes pretty, but not always even that. Architecture is more serious and deals with brutal facts; it is manifested in volume and surface. Cubes, cones, spheres, cylinders, pyramids, are the primary forms which light reveals. Modern architects have lost the sense of the primary elements, but their task is to deal with the surfaces of masses without destroying them; the volume must maintain its impressiveness although divided according to requirements. Guided simply by imperative conditions engineers have shown the way and given back to our eyes the joys of geometry. If the volumes are not degraded we receive a satisfying sense of order; when, further, the walls, floors, and vaults are adjusted according to reasons which are comprehensible, we attain architecture. Great architecture is something more tha construction; we, however, are not in



od of architecture, but in a period of truction.

HE ARCHITECTURAL FORUM, Boston, ades articles on "Some Recent Florida ools," "Interiors adapted from the an," and a new section entitled siness and Finance: Straight Talks Architects," in which Mr. C. S. lor studies the architect's question, w can I get more business in my e now?" He describes how a client d that a year ago the building of a se would cost him eight or ten thous- dollars more than he was willing to d, but discovered that he could build ouse, which last year would have cost 000, for less than $22,000 to-day, ig to four circumstances: 1. That ay prevailing prices for materials are tly lower; 2. That the right kind of hanics can be secured; 3. That the ency of workmen in the building es has increased; 4. That the market oth labour and materials is steadier, rge contingency fee thus being neces-

"Interiors Adapted from the an," Mr. W. F. Wheeler describes the acteristics and possibilities of the estic Italian manner, and explains ods of treatment of walls, ceilings, s and other details, besides giving



DRAWING-ROOM OR SALON IN HOUSE AT BOSTON.
BIGELOW AND WADSWORTH, ARCHITECTS.
From "The Architectural Forum."



HOUSE AT BOSTON: VIEW OF CORTILE TOWARDS STAIRWAY ARCADE AND LOGGIA. BIGELOW AND WADSWORTH, ARCHITECTS.
From "The Architectural Forum."

illustrations of notably successful work which has already been done in America. "In Italy," says the writer, "there has always been the preference, which obtains to-day in America, for a few rooms of ample size rather than a large number of small rooms . . . much of the reserve or reticence which is characteristic of the style consists in the use of a few appropriate and carefully selected fittings rather than of a multiplicity of small objects . . . a successful arrangement, particularly when the pieces used are of characteristic Italian broad and generous lines, requires wall spaces of suitable dignity to afford fitting backgrounds." Spaciousness, ample wall-spaces, severity, exquisite proportions, and a generous crudity of finish are the notes of the style, and the illustrations which we reproduce of the Cortile and Salon in the house of Mr. H. F. Bigelow, of Boston, show how cleverly the architect has expressed this Italian motif and atmosphere in the terms of a modern American town house.

THE AMERICAN ARCHITECT AND ARCHITECTURAL REVIEW describes a phase of architectural activity which does not exist, but is certain to develop, in England. This is the design for the picture play of immense architectural settings such as those staged in "Intolerance," or "Theodora," for which the research department of a film company is employed in work of the most minute character, under the guidance and direction of a screen architect who is the master mind of the whole conception. "There are five separate steps in the screen architect's labours," says the writer, "First, after reading the story of the play and deciding upon the type of sets to be made he draws a number of sketches. From these, finished detailed drawings are made of the various sets, and an army of draughtsmen are then turned on to produce scores of blueprints from which, in many cases, models of every scene are erected so that the directorial staff may work out the grouping of the

actors and test in miniature the effect of lighting arrangements, besides recording for future reference the exact action of the various players involved. The construction department is then entrusted with the erection of the sets, and the whole scheme materializes, still under the actual supervision of the architect. Thus, through this truly creative work the photoplay architect has become one of the most important members of the producing staff." The same issue contains illustrations of "The Public Library, Detroit, Michigan"—a typical example of Mr. Cass Gilbert's work. The building throughout is of the highest type of fireproof construction, with structural parts of reinforced concrete and protected steel. All floors are of reinforced concrete with surfaces of plain cement finish, mastic, tile, mosaic and marble; all partitions are of terra cotta; all wood trim is of oak. The walls, piers and columns of the entrance hall and stair halls are of Tennessee marble, with stairs and floors a combination of Travertine and Tennessee marble. The walls of the delivery room are of Bedford stone. The exterior is of light vermont marble with roof of slate and clay tile. All elevators are electrically operated. The lighting system is electric, with fixtures generally of the semi-indirect type. Direct low pressure steam heat is used, and the building is ventilated by a tempered blower system. An illustration of the principal façade appears in our text.

CONSTRUCTION, Toronto, deals with a "New Merchants' Bank," and the "Mount Pleasant Mausoleum, Toronto," both excellent works, by Darling and Pearson, architects.

GOOD FURNITURE, Michigan, has articles of interest on "German Cabinet Hardware," the "L'Ecole Boulle, Paris" (a world-renowned furniture school), and an American theatre at Baraboo, Wisconsin, inspired by the Opera at Versailles.

British Standard Channels and Beams

In August 1920, the British Engineering Standards Association issued a new list of British Standard rolled steel sections for structural purposes. This list contained particulars of the dimensions of the sections with their area and weights, but no details of the geometrical properties such as the moments of inertia. The Association has now issued these latter for the beams and channels, and they should prove of value to users and manufacturers, supplying as they do authoritative figures, which would otherwise have to be calculated independently. In addition to giving the dimensions and properties in British units, tables have been added showing the metric equivalents of these for the convenience of users in countries in which the metric system has been adopted. It is, however, indicated that the figures in inches or pounds are to be regarded as the standards.

In this new list, the symbol "J" has been adopted for the moment of inertia, and the term "modulus of section" has been substituted for "moment of resistance," the symbol "Z" being adopted in place of "R," which was formerly used. The new publication (Report No. 4, 1921) can be obtained from the offices of the British Engineering Standards Association, 28 Victoria Street, S.W.1, or from Messrs. Crosby Lockwood and Son, 7 Stationers' Hall Court, E.C., price 1s. 2d. post free. The British Engineering Standards Association, which was incorporated in 1918, was formed in 1901 as the Engineering Standards Committee by the Institution of Civil Engineers, the Institution of Mechanical Engineers, the Institution of Naval Architects, the Iron and Steel Institute, and the Institution of Electrical Engineers.

The Art of Veneering

It is often supposed, especially by those who are not technically informed, that veneering is, and must of necessity be, a counterfeit and a sham. This is an error which has to a large extent arisen from the discredit brought upon an essentially honourable craft by its misuse at the hands of certain manufacturers of shoddy furniture, who, for the sake of profit, have not scrupled to cover low grade woods with the thinnest possible veneer.

Those who are able to discriminate need hardly be reminded that inferiority of any description cannot justly be associated with real veneering. It is indeed essential that the core which is to be clothed must itself be constructed of the very best hard wood, specially selected for its non-warping qualities, durability, and freedom from defects of any kind. Generally speaking, thoroughly seasoned mahogany has been found to make the most reliable foundation upon which to lay veneer, and this is the wood mostly employed for the purpose.

Though primarily intended to enhance the appearance of higher-grade joinery, veneering possesses structural advantages which are frequently overlooked, or more probably not realized. Finely figured cabinet woods when used in the solid will split and warp, and this applies particularly to those containing "curls," or "feathers." The same woods, on the other hand, when used as veneers are exceedingly durable, and will remain intact for very long periods, as can be seen from the magnificent specimens of antique workmanship exhibited at the South Kensington Museum, and at Hampton Court. Veneering, therefore, is not resorted to for cheapness, but because it stands better than solid work.

The process is not necessarily a costly one, and brings within reach of the public some of the richest and rarest woods the world produces.

It is precisely this quality of sumptuousness which makes veneering such an attractive decorative element in modern building, and has brought it into marked favour among architects in recent years. Its use undoubtedly produces an effect of great distinction and richness, which is entirely in keeping with the modern tendency to give adequate architectural expression to civic and commercial buildings. Instances of its employment for the embellishment of vestibule interiors, staircases, and high-class joinery generally may be seen in many of our most recently erected public buildings and institutions, as well as in numbers of private dwellings.

Shipbuilders, too, use it extensively for the saloons and state rooms of their palatial liners, the decoration of which very often rightly placed in the hands architects.

In a short article such as this, it hardly possible to do more than ma passing reference to the technical aspe of the art.

In this connection it may be emphati ally stated that the best results a obtained from saw-cut veneers, which the older method of cutting.

Some of the richest effects are produc by quartering, which consists in cutti four "leaves" from one block and maki a concentric pattern by twice reversi the figure. When the wood contai "curls," this is perhaps the most effecti method to employ.

Straight-grained veneer lends itself a somewhat similar treatment, with t difference that, in addition to being qua tered, the parallel lines of the figuring a arranged diagonally to form a symme rical design known as "feathering."

"Paired" veneering is simpler tha either of the preceding, and is produc by once reversing two figured leaves fro a block and laying them with a sing vertical or horizontal joint.

Various costly hard woods having e ceptionally beautiful figuring are ordinary use for veneering, such Spanish and other mahoganies, polla oak, and West and East India satinwoo The latter, which is especially suitab for the decoration of the staircas saloons, and cabins of liners, has be known to fetch as much as £2,000 for single log.

Ancona walnut has been much used f veneering during the past few yea because, in addition to its naturally fi appearance, its general tone is such th it does not interfere with colour schem generally.

The art of veneering, as practised craftsmen of repute, has not undergo very material change since the time whe during the reign of Queen Anne, it reach its highest level of excellence.

Such modifications as have taken pla chiefly relate to improved machine and the introduction of knife-cut venee as distinct from the older and bet method of cutting them with the sa It is probably due in some measure the continuance of traditional metho that the best modern veneering is al to compare very favourably with the o not only as regards appearance, but a in the skill with which it is fashioned.

Although the art is carried on w considerable success by some of the mo renowned firms of contractors, it is craft which essentially lends itself expert manipulation, and, as is the ca with many another branch of decorati art, the finest work is done by specialis

The writer of these notes calls to mi one such house—that of Messrs. Emanuel, Ltd., of Camden Town—wh for nearly three quarters of a century firm has been occupied with very lit else than veneering. Here one may the whole process in operation, a appreciate the high degree of techni skill necessary on the part of the craf men for the constiencious execution the work. And even in the instan named, the possession of exceptio facilities in the way of equipment wo be of little avail unless backed by experience and prestige acquired decades of honourable achievement.

ome Notes on the Planning and Equipment of Tuberculosis Sanatoria

(*Specially Contributed.*)

LTHOUGH the powers of medical science to deal with the ailments of the human body are continually ding, they, as yet, do not include *bsolute* cure for tuberculosis. They nable to formulate a method of ietically or of artificially manufac- g an anti-toxin which could be ed into the body to combat the es of the tubercle bacilli. Nature, ver, automatically provides her own oxin in the blood of the sufferer, ll that medical science is able to do dually to stimulate and develop this oxin, and with it the resisting power e patient, so that the fatal bacilli oe, if not overcome, at least rendered ve and harmless as a result of this iecine strife.

e advances that have been made in ig with this disease are largely ical, but they have now reached a when, provided the disease is dealt in its early stage, its arrest can be igh assured. It is interesting to that almost every human being is ly consumptive, and the difference en a normally healthy person and a mptive is mainly one of degree, ding upon individual powers of ance. This power of resistance it ich is hereditary, not the disease It was recently stated of a French r, that he spent two years in 1 of a pair of lungs unscarred by culosis.

Sanatorium Treatment

e reader may, at this point, well er at the inclusion of these details in chitectural paper, but the treatment erculosis, like every other human ty, requires the services of the ect, and the purport of these intro- ry remarks is to show the preva- f the complaint, and the unscientific, ccessful, methods of combating it.

atorium treatment is an enigmatic e, which not only bewilders the erienced, but defies definition by atient; it is at once everything and ig, yet it is the treatment that has, r, yielded the most satisfactory s, and that is now universally ed. It has three essentials: self- line, good food, and fresh air. It medicinal, yet despite its simplicity mode of life that most emphatically t be carried out in the home of any ry citizen of a civilized community. nands a special environment and a l building.

first of the three essentials is, to extent, dependent upon the site, , in order that the patients may be ted from the pressure of mundane , and from the temptation of out- cial intercourse, should be isolated. healing of pulmonary tuberculosis ality of the air is important; the ould be high, but sheltered from the and if possible on a southern The proximity of pine trees is ble, although not essential. The soil should be sand or gravel. In addition, of course, the ordinary considerations common to all site selections will prevail.

The Building's Divisions

The building divides itself functionally into the following departments: administration, staff quarters, patients' dining and recreation rooms, kitchens, patients' wards, lavatories and bathrooms. In addition to these, to most sanatoria will be attached a medical superintendent's house, laundry, power-house, garage, chapel, and post office. In planning, the whole must be considered together; but since all are dependent upon the disposition of the patients' quarters, these will be considered first. It is desirable that each patient has a separate room, since rest and quiet form an important part of the early treatment. These rooms will occupy the south front. They should measure about 12 ft. by 16 ft., and should have large French casement windows, divided both vertically and horizontally, and with the lower portions solid, occupying almost the entire southern wall. Above should be an adjustable fanlight extending to the ceiling, and another over the door, ensuring through ventilation. It should also be possible to fix the door open at various points. A wide balcony should be planned outside the rooms, and in order that the maximum sun and air may enter the rooms this balcony should not be roofed; thus, if the patients' quarters be of more than one story, the upper one must be set back in order that its balcony does not overhang the one beneath; a couple of feet oversailing is of no consequence. The windows should be fitted with turned shutters, which will exclude rain, in addition to keeping the rooms cool in summer, and affording privacy for dressing. At Leysin, in Switzerland, most successful results are said to have been obtained with surgical tuberculosis by means of sun treatment; this, if adopted in England, will call for a special arrangement of balconies giving greater privacy to the patients for the purpose of sunbathing. A simple arrangement for the patients' wards is to have radiating arms east and west, with the rooms on the south side and a passage on the north which gives access to bathrooms, lavatory blocks, and a room for the nurse on duty, with kitchen and pantry.

The bathroom and sanitary arrangements in connection with the patients' quarters do not differ from those which will be found in most hospitals. There is, however, one unpleasant characteristic of the complaint which demands special attention. Pus is produced by the diseased lung, and this sputum takes the form of expectoration, and for this purpose the patients require special vessels; a sputum mug by the bed, and a flask on the person during the day. This sputum is innocuous whilst in a moist condition, but highly infectious when dry; it therefore requires great care in handling, and a special lift should be provided, connecting each floor, to transport these vessels to a room containing special apparatus for scalding both the vessels and their contents.

The recreation-rooms should comprise a writing-room, games-room, and library. All should have a south aspect, and should be ventilated from floor to ceiling. Some of the upper lights should be centre-hung and operated by a winding gear controlled by a removable key. A welcome addition to the rooms mentioned is a hall entirely open on the south side, which, if planned in conjunction with a small retiring-room, can be used for concerts, lectures, and divine service. An endeavour should be made to construct on the south side of the building a series of alcoves or shelters where the patients can sit in all seasons of the year. These can often be placed beneath the ground-floor balcony, and as every encouragement should be given to patients to remain in the open air, these shelters should be artificially lit and heated.

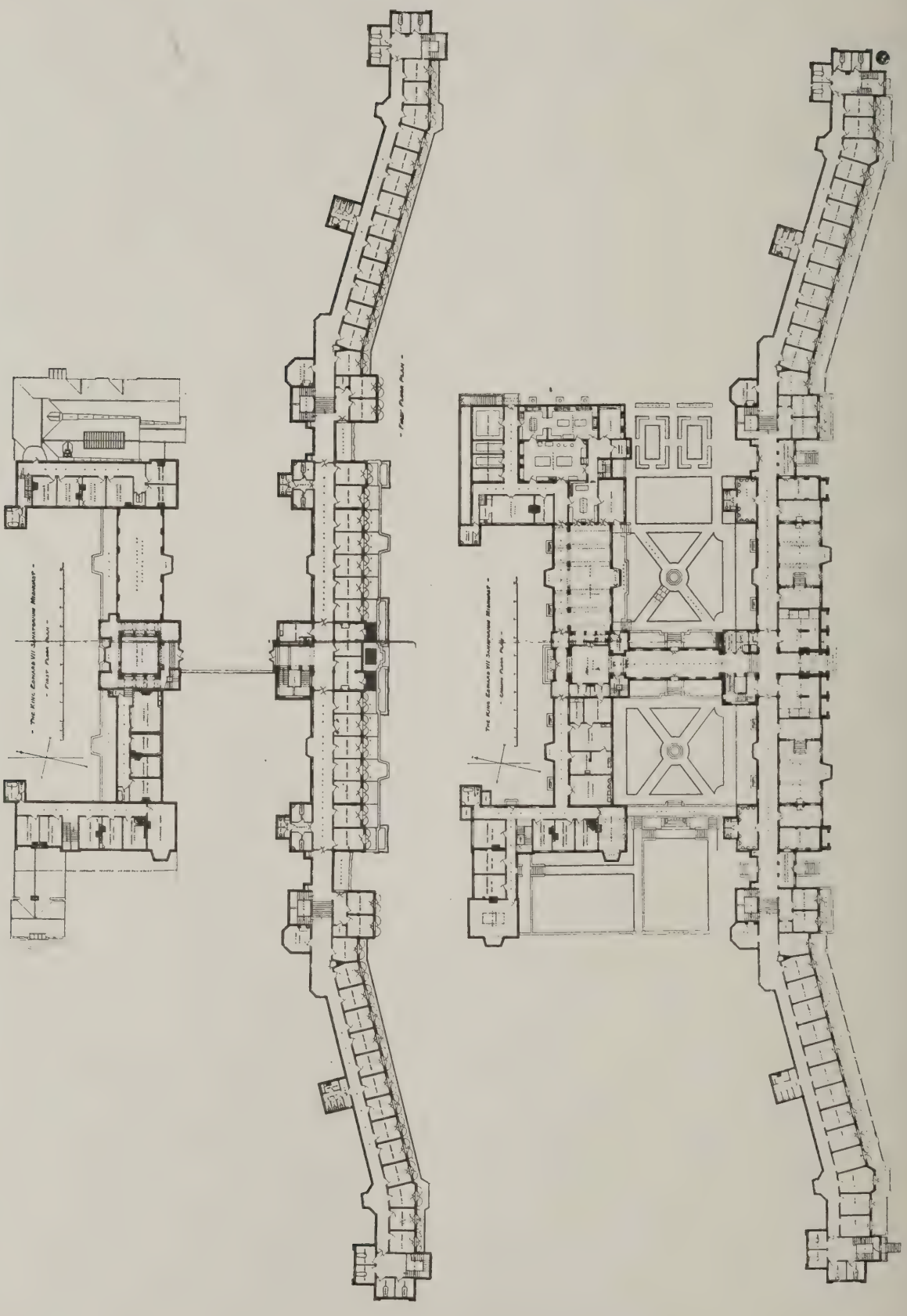
The dining-room and kitchen call for no special comment except to emphasize the importance of fresh air and ventilation in the former. It is almost impossible to over-fenestrate, and the control of the windows should not be left to the patients, who are apt to consider their immediate comfort in cold weather rather than their ultimate recovery.

Administration and Staff

The administration block should include a medical superintendent's room, adjoining which there should be a waiting or ante-room, a dispensary, an X-ray room (the X-ray is now used to photograph the lungs of suspected cases, where other tests have failed to give a definite result), a secretary's room, and accommodation for his staff. A small post office, a porter's room, waiting-room for visitors, and a games-room for the storing of bowls, croquet, quoits, clock-golf—the playing of which games forms part of the treatment—should be grouped round an entrance hall or lounge. A bacteriological laboratory is required for the examination and testing of sputum and blood, and an operating theatre is sometimes desirable, although rarely required in a sanatorium devoted exclusively to pulmonary cases.

The staff quarters will, of course, vary with the size of the staff to be accommodated, and will include generally doctors' bedrooms, common room, and dining-room—although in many sanatoria the doctors dine with the patients—possibly a billiard-room; nursing staff bedrooms, dining-room, and common room; matron's sitting-room; and bed, dining, and common rooms for the domestic staff.

In the early stages rest with a little exercise, and in the later stages exercise with periods of rest, form an integral part of the treatment. This must be considered in planning, so that patients do



waste unnecessary energy in getting
n one part of the building to another.
, should be installed if the building
nore than one story; the public rooms
ild be placed centrally and within
reach of all the wards; there should
numerous doors giving access to the
nds, so that the patients can readily
in egress without undue walking.
, since strict discipline is also an essen-
the whole should be arranged so that
ervision is easy, and no opportunities
afforded, or no incentive given, for
ents to congregate within the build-
rather than remain outside in the
n air.

o attempt can be made in this short
cle to deal in detail with the internal
h and equipment of the building, and,
ed, since these do not differ from those
valent in general hospitals, such an
mpt is not necessary. All surfaces
t be impervious and washable; all
rnal angles both wall to wall and wall
oor and to ceiling should be rounded,
ldings eliminated as far as possible,
pipes, radiators, etc., should be fixed
y from the walls. Every part must
washable and accessible, for it must
er be forgotten that dried sputum in
form of dust is germ-carrying; there
t, therefore, be no corners where dirt
accumulate.

eating should be made part of a com-
nensive scheme which includes the
dry, electric-light plant, and, where
essary, water supply. On account
he extraordinary amount of fresh air
must circulate through the building
ll seasons of the year, the supply of
ing surface must be increased beyond
usual standards; at the same time
ystem that can in any way vitiate the
osphere should be considered. Steam
be required in connection with the
dry and generating station, and the
aust steam can be utilized, being col-
ed and supplemented by live steam
passed through one or more calorifiers.

mniscience is certainly a quality per-
ing to the ideal architect, and although
is practically impossible, it is essen-
that the architect should make him-
to some extent familiar with the work
ch will be carried on within the build-
which he proposes to design. A
rch cannot be designed without a
wledge of the ritual of its congrega-
, or a theatre without a knowledge
tagecraft. Where circumstances per-
of such an ideal arrangement, it is
rable that the closest co-operation
ld exist between the architect and
medical staff of a proposed sanatorium,
rom the conjunction of their technical
erience will emerge the building which
yield the highest efficiency.

Emotion Lamps" in a Church

novel experiment in the shape of an
mpt to stimulate spiritual emotion by
use of lighting effects is being at-
pted at the Church of St. Mark-in-the-
verie, New York. Mr. Charles Bragdon,
ominent theatre architect and a devout
rchman, has devised a system of using
lighting effects for heightening the
nences of music and prayer upon the
tions of the congregation, rendering
n more inclined to religious devotion.

Competitions Open

Cinema at Bury.

Super-Cinema for Bolton Street, Bury, Lancs. Full particulars from Mr. J. Arnold Crabtree, Manager, Castle Picture Palace Co., Ltd.

"The Daily Mail" Labour-saving House Competition.

"The Daily Mail" offers £500 in prizes to architects for ideas and designs for labour-saving houses. Prizes of £300, £125, and £75 are offered for the best designs for a labour-saving house for a professional class family, who would occupy a house costing £1,000 to £1,200 at pre-war rates of building, and which would now cost anything from £2,500. A house will be erected at "The Daily Mail" Model Village, Welwyn Garden City, Herts, to the designs of the architect winning the first prize of £300, and a model of this design will be shown at the Ideal Homes Exhibition at Olympia, March 1–25, 1922. The general points upon which this competition will be judged are :—

1. Convenience of the plan itself from the labour-saving point of view.

2. The merit of individual labour-saving suggestions incorporated in the house.

3. The economy with which the idea is carried out.

4. The architectural appearance of the exterior.

"The Daily Mail" has issued a booklet giving the conditions in full.

Licentiates' and Students' Competitions.

Society of Architects' Quarterly Competition ending October 31, 1921. Measured drawings, consisting of one sheet to one-eighth scale, one sheet to half-inch scale, and one sheet of enlarged details. They must be delivered, carriage paid, at the Society's offices, 28 Bedford Square, W.C.1, not later than 6 p.m. on Monday, October 31, together with the original sketches and notes. A first prize of the value of £6 6s., and a second of the value of £4 4s., if more than ten competitors send in their drawings, may be awarded, varied, or withheld, at the discretion of the Council.

Ilford War Memorial.

War Memorial Monument, to cost £500 or £600. Apply Mr. H. J. Weston, 24 The Square, Ilford. Closing date Oct. 31.

Harrogate War Memorial.

War Memorial at a cost not exceeding £5,000. Premiums: £100, £50, £25. Particulars from Mr. C. E. Rivers, A.M.I.C.E., Borough Engineer, Municipal Offices, Harrogate. Closing date Dec. 1.

A New Zealand War Memorial.

The City of Auckland, New Zealand, have raised a fund for the erection, at a cost of £170,000, of a museum and institute as a war memorial. The design of the building will be the subject of a competition open to all architects. The Mayor of Auckland has sent copies of the conditions to the secretary of the R.I.B.A. with the request that he should bring the competition to the notice of British architects generally, and in particular to architectural students from New Zealand who are studying at the British schools of architecture. Premiums amounting in all to £1,000 will be given to the authors of the first three designs. The conditions, which have been amended to meet the requirements of the R.I.B.A., can be seen at the office of the Royal Institute, 9 Conduit Street, W.1. The time for sending in designs has been extended to May, 1922.

Chelmsford War Memorial.

Chelmsford Town Council, upon the recommendation of the War Memorial Committee, have selected the design submitted by Mr. Hamilton Buchan, of 15 Lombard Road, Battersea, S.W. The design of Mr. S. H. Head, of 24 St. John's Road, Chelmsford, was placed second.

Southend, Ilford, and Bury Competitions.

Members of the Society of Architects are requested not to take part in the following competitions without first ascertaining from the Society that the conditions have been approved by the Council: Southend-on-Sea Pier Pavilion Improvement, Ilford War Memorial, and Bury Super Cinema.

Bury New Cinema Competition.

The R.I.B.A. Competitions Committee have issued a notice stating that the conditions of the Bury new cinema are unsatisfactory. The Competitions Committee are in negotiation with the promoters in the hope of securing an amendment. In the meantime Members and Licentiates are advised to take no part in the competition.

Housing in the United Kingdom

"It is beyond question that by the middle of 1922 upwards of 200,000 houses having a population of at least a million people will have been built by local authorities in the United Kingdom." This statement appears in the last weekly record issued by the National Housing and Town Planning Council, who state that in England and Wales, as distinct from Scotland, upwards of 1,200 separate local authorities have housing schemes in process of realization. Many of these local authorities have under their housing care wide-spread rural areas in which it is not uncommon to find from 20 to 40 separate village housing schemes now being carried into effect. Local authorities such as Manchester, Liverpool, Leeds, Bristol, Newcastle-upon-Tyne, Sheffield, Nottingham, and Cardiff, have schemes in process of rapid realization for the building of thousands of houses. In Scotland all the great local authorities have housing schemes, and the progress which is now being made in such large cities as Glasgow, Edinburgh, and Dundee is of a substantial character, even though the number of houses under construction falls far short of the crying needs of the people. Taking all the schemes in Great Britain together, the report states that land has been purchased for upwards of 800,000 houses. On this land roads have been roughly formed for the building of about 400,000 houses.

Latest List of New Inventions

Latest Patent Applications.

26158.—Harvey, W. G.—Concrete building construction. October 4.

25737.—Nickson, O.—Walls, buildings, etc. September 29.

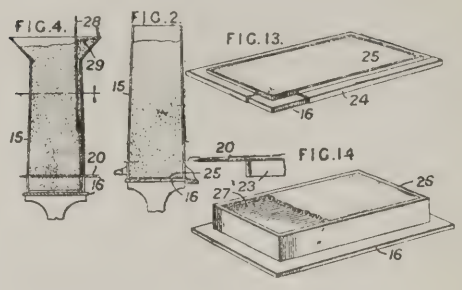
25636.—Simpson, T.—Systems of concrete, etc., building in situ. September 28.

Specifications Published.

169516.—Pedersen, L. J.—Unit for building walls and the like.

Abstract Published.

167010.—Moulding building-blocks, etc. —Crozier, A. O., 90 West Street, New York, U.S.A.—In the manufacture of faced bricks, blocks, etc., a shaft 15 is filled with slushy concrete, so that the lower portion of the column is subjected to an "unwatering" and compacting or densifying effect by the weight of the mass above. Facing-material is applied at the lower portion of the column in a variety of ways. The lower portion is severed from the column and, if desired, sub-divided into bricks, etc., by knives 20, 23, Fig. 2, of substantial thickness to compact further the lower portion. A pallet 16, Fig. 2, with facing-material is placed in position, and the column is, in the first instance, supported by the knife 20. On withdrawing this the column drops bodily on to the facing layer so that the two are joined integrally. The knives are then driven home, severing and sub-dividing the lower portion, and the knife 20 is withdrawn just sufficiently to clear the knives 23. The divided block is removed on its pallet. If a facing layer is desired on the side of the block, the facing-material 29 is introduced by means of a plate 28 or plates, as shown in Fig. 4, the plate being preferably arranged to drop with the column. The wet facing-layer 25 may be positioned on the pallet by means of a frame 24, Fig. 13, or it may be applied to the severed block 27 by subsequently placing this in a frame 26 and introducing the facing-layer as shown in Fig. 14. The facing-layer may be given a surface design by means of a piece of woven fabric introduced between the pallet and the facing-layer, or subsequently pressed on to the faced block. Or the block may be covered with strewn sand, crushed rock, small pebbles, etc., with or without a facing-layer, pressure being applied if desired, or the crushed rock may be mixed with cementitious material and applied, in which case the film of cementitious material may be washed off the surface of the pebbles by water or weak hydrochloric



acid. If a smooth polished or glazed effect is desired on the facing-layer, a pallet having a polished surface of glass, celluloid, metal, etc., may be used. The facing-layer may be stippled or grained by means of a stiff brush, or it may be of various materials and colour.

The above particulars are specially prepared by Messrs. Rayner & Co., Registered Patent Agents, of 5 Chancery Lane, London, from whom readers of this Journal may obtain all information free relating to patents, trade-marks, and designs. Messrs. Rayner & Co. will obtain printed copies of the published specifications and forward on post free for the official price of 1/- each.

Enquiries Answered

Plans and Specifications.

F.S. writes: "Can a client legally demand the specification and plans prepared by an architect, who has obtained tenders, but has relinquished further interest in the matter owing to the client acting on his own initiative in procuring revised tenders? The client requests copies of plans and specification prior to payment of account rendered."

—The client's rights depend somewhat on the bargain made when he first gave his instructions, but his request is not unreasonable. I suggest that on payment of the usual fees for their preparation he should receive a copy.

F.S.I.

Cracked Glass on Shed Roof.

E. H. writes: "I have been asked to report on a 'saw tooth' shed roof which is slated one side and has plain wooden skylights on the steeper pitch. The i.p. glass is puttied into wooden skylight bars and supported at the bottom by metal clips, one in the centre of each light. The glass has cracked in almost 50 per cent. of the lights, the crack radiating from the clip upwards. Only the bottom squares have cracked in most cases. I raked out putty, and found room for expansion at the sides of the squares, so apparently this is not the cause. The wood of the roof is twisted very slightly by heat during summer weather, but not enough to cause the trouble. I am inclined to blame the clips, which are of tin, or probably tinned sheet iron. My view is that copper or lead would have saved the trouble, and the hardness of the metal of the clips has not allowed for expansion. The bottom rail of the skylight is bolted to a strong c.i. gutter, and the clips have not rusted to any extent."

—The glass has apparently been cracked by the rigidity of the clips not allowing any expansion, but this could only be definitely settled by a personal inspection. Lead clips would probably have avoided the trouble.

HENRY ADAMS.

Law Reports

Claim for Work Done

Quail v. Darter.

Oct. 15. Official Referees Court. Before Sir Francis Newbolt.

Mr. Arthur John Quail, in this sued Mr. Karl L. Darter, tradin Charles Ledsham, at 455 High R Tottenham, for £117 balance of a count of £540 15s. for work and mat supplied in fitting up shops at 155 High Road, Tottenham in accord with an estimate given.

That the work was done was not puted, but defendant said that the p tiff's estimate for it, given in Jan 1921, was £356, plus £40 for plate shop fronts. He admitted, how that the plaintiff executed the subject to alterations and addi from time to time as ordered. The estimated for was done on prem occupied by defendant as an opti and it was alleged by defendant th was done badly, in an unworkma manner, and not in accordance with estimate, rendering the premises of value than they would have been the work been properly carried out was alleged by the defence that the were roughly made and fitted b that oak had not been used for the m ing of the windows as specified, and there were numerous other defect respect of which the defendant cou claimed. He said that by reason o plaintiff's neglect to do the work pro he had suffered damage, and woul put to the expense of remedying th fective work, which had prevented from carrying on his business a optician.

Evidence was given on both side to the character of the work, and in result the Official Referee gave judgm for the plaintiff for £60, with cost the High Court's scale.

Societies and Institutio

Institute of Scottish Architects.

At a meeting in Edinburgh the Co of the Institute of Scottish Architect structed the Competitions Committe adjust a scheme for the enforcemen satisfactory conditions in public co titions with the R.I.B.A. It was st that, in regard to raising the standar training, etc., a general scheme is under consideration by the commi The question of the desirability or ot wise of the formation of Art Com sions to advise the public authorit Scottish cities on questions of ame was also under consideration, and fur discussion was postponed. A re was put in of the developments in nection with the application for a r charter shortly to come before the P Council.

Leeds School of Art.

We have received the prospectus o Leeds School of Art, Department Architecture and Civic Design, for session 1921–1. This department, w is recognized by the Board of Arch tural Education, provides sound inst tion in all branches of the profession, courses being planned to prepare stud

he examinations of the R.I.B.A. ime, part time, and evening classes been arranged. The department is the direction of the following: man: W. H. Thorp, F.R.I.B.A. pal: Haywood Rider, A.R.C.A. .). Department of Architecture ivic Design.—Head of Department: h Addison, A.R.I.B.A., A.T.P.I., .I. Assistant Teacher: F. W. H. n.

Architectural and Civic Design ory Sub-committee is composed of llowing:—Chairman: J. C. Procter, A.R.I.B.A.; D. Bowman; R. Field-arrar, A.R.I.B.A.; G. H. Foggitt, .B.A.; W. Carby Hall, F.R.I.B.A.; lban Jones; W. T. Lancashire, .E.; F. Massie, M.I.C.E., F.S.I.; Procter, A.R.I.B.A.; W. H. Thorp, .B.A.; W. Whitehead, A.R.I.B.A.

Lectures on Forestry.

Leslie S. Wood and other holders of pecial diploma in Forestry have, the approval of the Council, or-d a series of six lectures on Forestry held at the Surveyors' Institution November to February. The lec-will be: Major K. W. Braid, B.A. ab), B.Sc. (Aberdeen); Mr. M. C. esne, F.S.I., Special Forestry Dip-and Watney Prizeman, Curator of nstitution Forestry Museum; Pro-Fraser Storey, of the Forestry ission; Dr. J. W. Munro, Entomo-of the Forestry Commission; Pro-H. A. Pritchard, F.S.I., Special ry Diploma and Watney Prizeman, e Forestry Commission; and Mr. S. Wood, F.S.I., Special Forestry na and Watney Prizeman. The will cover the following subjects: lationship to forestry of the State, andowner, and the land agent; cal and technical sylviculture; entomology; forest botany; and the ercial uses of timber.

Trade and Craft

"Pyruma."

ruma: the Fire Cement with a ed and One Uses," is the title of esting little booklet just issued by . J. H. Sankey and Son, Ltd., of Wharf, Canning Town, E.16. ia is mostly used for repairing and firebrick work, but has many other nd is claimed to set hard without to resist the highest temperatures, ays ready for use, and is cheap. points apply if it is used either in tory or home. To use the material t is necessary is merely to clean the in fire-brick work, take a small ty from the tin or keg, press it in— t sets hard and stops there. The ate that the material can even be d to a red-hot surface, which is necessary, especially in furnace repairs where furnaces cannot be d to cool down. Pyruma is put tins and kegs ready for use. It es no mixing; you simply take out ou require, and if any is left over, be put back. In manufacture the ients are so blended that when ig with the material it is just the consistency for easy use. It is not or dirty, and a perfectly smooth can be obtained by wetting the trowel or hand and gently smearing over. Pyruma is made in two grades: Coarse for bulk work and general furnace construction; and Putty for smaller work and lower temperatures. The putty can be applied with the hands without soiling them. Repairing cracks in ceilings possibly is an infrequent use; but such things as leaky gas-pipes, holes made in the wall by nails, a broken window (temporarily repaired by a dab of "Pyruma" to hold the broken parts together), are frequent uses which are found for it.

Cabot Quilt Rights Transferred.

Messrs. Building Products, Ltd., of Columbia House, 44–46 Kings Road, Sloane Square, S.W.3, have taken over from Messrs. Arthur L. Gibson, of Twickenham, the sole selling and distribution rights in this country of "Cabot's heat insulation and sound-deadening quilt." Among the numerous important buildings in which the quilt has been used are the National Institute for the Blind, St. Paul's School of Music, Marconi's Silence Huts, etc. The quilt has also been used in connection with Scott's Antarctic Expedition. Messrs. Building Products hold good stocks, and very large orders can be executed in a few weeks.

Ediswan Semi-indirect Fixtures.

"Ediswan Semi-Indirect Fittings for Home and Office Lighting" is the title of a useful pamphlet just issued by the Edison Swan Electric Co., Ltd., of Ponders End, Middlesex. Nine different types of fitting, made in various metals, and having opal, lustral, or other bowls, are described and illustrated, as well as galleries, glass shades, and three kinds of desk lamp. All the fixtures shown are the joint production of artist and craftsman, and should be found to be admirably suited for both home and office lighting. The Company undertake to design fittings to harmonize with any style or period of decoration.

Nautilus-Danish Coke Stoves.

The Nautilus Company, of 60 Oxford Street, London, W.1, have sent an illustrated pamphlet describing the Nautilus-Danish coke stove, the sole European agency for which has been obtained by the company. The stove, designed primarily to burn coke, is a highly scientific production, claimed to give out a large amount of heat at small running cost. It can be lighted without difficulty, only requires stoking twice daily, and, if desired, will burn wood and peat instead of coke. Many of the designs are the work of Danish sculptors.

Morris Vertical Boilers.

Easy firing, easy stoking, and easy clearing appear to be the primary features of the Morris Vertical cross-tube boiler. In an illustrated leaflet just received the manufacturers, Messrs. Herbert Morris, Ltd., of Loughborough, give full constructional details of the boiler, together with prices, and point out that during the past thirty years the successful application of the boiler has been practically unlimited. No special brick-setting is required, and the boiler, which occupies a minimum of floor space, can be placed in almost any odd corner. In hotels, laundries, public buildings, and large private houses, and for cases where the feed-water is dirty or deposits much settlement, this type of boiler has been particularly successful. Boilers are supplied by the firm to burn any fuel, to pass the requirements of any marine register or boiler insurance company, Lloyd's Survey, and Board of Trade, and to suit the requirements of Indian, Colonial, and foreign markets.

Richmond Gas Stove and Meter Co.'s New Premises

Opening Ceremony at Warrington.

As announced in these columns last week, the Lord Mayor of Manchester formally opened the Richmond Gas Stove and Meter Co.'s new offices and extension to the works at Warrington on the 19th inst., in the presence of a large and distinguished gathering.

The occasion was a notable one even for Warrington, which justly holds a pre-eminent position in the industrial world, and among those who attended and spoke at the ceremony were Mr. H. James Yates, F.C.S. (Chairman of Radiation, Ltd.), Mr. H. M. Thornton, J.P. (Vice-Chairman of the Richmond Gas Stove and Meter Co., Ltd.), the Mayor of Warrington (Councillor Robert Henshall, J.P.), Sir Peter Rylands (President of the Federation of British Industries), Mr. John Coxon, J.P., and Mr. J. W. Slack.

The new buildings comprise two stories, and are of local red bricks with stone dressings, from the designs of Messrs. Wm. and Segar Owen, architects. No expense has been spared to give adequate architectural expression to the structure, which possesses considerable dignity, and is carried out in the best possible manner. This applies particularly to the board-room, which is panelled throughout in oak.

Having been called upon by the Chairman, Mr. John Coxon, J.P., the Lord Mayor of Manchester, in the course of a very interesting address, drew attention to the valuable public service rendered by the Richmond Co. in devising efficient apparatus for the use of gas consumers throughout the country, and added his personal testimony to the benefits which the company's far-sighted enterprise has conferred upon the City of Manchester by promoting the economical use of gaseous fuel.

That the Richmond Co. had, by its pioneer work, won the goodwill of those at the head of the gas industry, was evident from the statement of Mr. Thornton when he announced that he had received a list of 300 gas engineers who, in regretting their absence, wished the company every success in the future.

Other letters of regret were read from Lord Derby, Lord Leverhulme, and Sir Robert Hadfield.

At the conclusion of the proceedings the company's guests, who included a very large number of press representatives, were conducted over the works in parties, each in the charge of a member of the staff. The opportunity thus provided, of witnessing the innumerable processes through which a Richmond gas cooker—and every part of it—has to go, was much appreciated, and to such as were not conversant with the true meaning of mass production the visit could hardly fail to be a revelation. We hope to publish some illustrations of the new works in our next issue.

The Week's News

New Synagogue for Golder's Green.

The foundation stone has been laid of a new synagogue at Golder's Green.

New School for Ayrshire.

A new school—a semi-permanent building to cost £9,000—is to be erected at Maybole, Ayrshire. The architect is Mr. James K. Hunter, Ayr.

Architects' Change of Address.

Messrs. Davis and Emanuel and Henry C. Smart, architects and surveyors, have moved to 73a Queen Victoria Street, London, E.C.4. Telephone: City 8327.

Cheap Direct Labour.

Twenty cottages have been built by Newmarket Urban District Council by direct labour at a cost of £760 each, against builders' tenders of £1,175 per cottage.

Galashiels Municipal Buildings.

It is intended to build an addition to the Municipal Buildings at Galashiels as a war memorial. The total outlay will be about £25,000. Sir Robert Lorimer, architect, has prepared plans.

Royal Air Force Memorial.

Plans of Sir Reginald Blomfield for the war memorial to the Royal Air Force at Whitehall Stairs, Thames Embankment, have been approved, and the construction of the monument is to be proceeded with.

A Correction.

Mr. T. Taliesin Rees, F.R.I.B.A., inadvertently stated in our last issue that the late Mr. F. G. Briggs was articled to Mr. John Clarke. This should read Mr. *Thomas* Clarke.

Kelso War Memorial.

The war memorial erected at Kelso from designs of Sir Robert Lorimer, architect, cost £4,000. The centrepiece is a pillar surmounted by a cross, the height being 34 ft.

Hawick War Memorial.

The war memorial in the Wilton Parish Church, Hawick, comprises a mural tablet of Roman stone and a border of Caen stone, the whole between stained-glass windows. The designer is Mr. James P. Alison, F.R.I.B.A., Hawick.

"Trocadero" Extensions.

The Trocadero Restaurant is again to be greatly enlarged. Eventually the restaurant will extend into the area once occupied by Panton Square, which has already been demolished by Messrs. J. Lyons & Co.

Beresford Memorial in St. Paul's.

The memorial erected to Admiral Lord Beresford in the crypt of St. Paul's Cathedral consists of a mural tablet in marble showing a bust portrait of the Admiral in high relief. The tablet has been executed by Mr. Thomas Tweed.

Building in Southampton Row.

Work has been begun on the new offices for the Liverpool Victoria Friendly Society, which are to occupy the large island site between Bloomsbury Square and Southampton Row. The architect is Mr. Charles W. Long, F.R.I.B.A.

New Cinema for Hackney.

Work will shortly begin on the erection of a Winter Gardens and Cinema in Mare Street, Hackney. The theatre will have a seating capacity of 2,500, and the café 500. Mr. Clifford Aish, F.S.I., of 22 Bedford Street, Strand, W.C., is the architect.

Repairs at Buckingham Palace.

Work has been begun on the exterior of Buckingham Palace. At the King's wish, as much work as possible has been put in hand by the Office of Works. The east side of the quadrangle is faced with scaffolding, and the inside walls of the square are being pointed and refaced.

Woolwich Additional Schemes.

Sir Alfred Mond has authorized Woolwich Borough Council to obtain tenders for one hundred additional houses under the Government scheme, and also to proceed with the making of further roads in connection with the Government housing scheme.

Boston Water Supply.

The water supply of Boston—a reservoir fed with surface water—having failed, Mr. Radford, of Messrs. Radford and Son, of Nottingham, engineers, is prospecting for the council for water in the Saw Vale District. At present water is being distributed in carts.

Sandhurst War Memorial Chapel.

Progress with the new chapel at the Royal Military College, Sandhurst, a memorial to over four thousand cadets who, as officers, fell in the war, is being delayed owing to lack of funds. Upwards of fifty memorials contributed by various regiments have been placed in the completed and dedicated chancel.

Sir Edward Elgar's Home.

Severn House, in Netherall Gardens, Hampstead, where Sir Edward Elgar, O.M., lives, is for sale. The architect was the late Mr. Norman Shaw, R.A. A feature of the house is the music-room, 36 ft. long, that communicates with both the library and the Oriental room, now used as a billiard-room.

Blackburn New Public Halls.

Blackburn's new public halls, formally opened last week, have cost £160,000. The work was commenced in 1912, and the foundation-stone was laid by the King in the following year, but the war suspended building operations until after the armistice. A war memorial organ costing £12,000 has been installed. Messrs. Briggs and Thornely, FF.R.I.B.A., were the architects.

Lavender Hill War Memorial.

The new war memorial lately unveiled at the Church of the Ascension, Lavender Hill, S.W., is in the form of a Calvary with attending figures, and consists of three separate panels, carved in relief, and let into the existing plain brick wall. Portland stone was used for the sculpture, which was the work of Messrs. E. J. and A. T. Bradford, of Borough Road, S.E.

Berkhamsted War Memorial.

The memorial recently unveiled takes the form of a wayside cross, enriched with cusping, and protected by a cope in the form of a little pent roo stands 23 ft. above the pavement le an octagonal shaft. The memoria been constructed of Darley Dale stone, and the masonry has all been by hand. The architect is Mr. Quennell, F.R.I.B.A.

£40,000 Scheme at Sunderlan

The River Wear Commissioners decided to proceed with the levelli the Barrack site at Sunderland. work will enable a deep-water quay built, and railway connections w made from the docks to the river. 400,000 tons of material have to be vated, and this work will employ s hundreds of men for many months. the approval of the Sunderland Council has been given, work will in hand at once.

Old Saxon Church Foundation

A discovery of much interest to a ologists has been made on the site Kent County War Memorial in the C bury Cathedral precincts. In the of the alterations in the convent g on the east side of the Cathedra foundations of St. Mary Queningate, the Saxon churches known to have e in the city, have been laid bare. exact position has been verified fr mediæval charter in the possession Dean and Chapter, which give boundaries of a building adjacent city wall.

Alleviating Trade Depression.

The Executive Committee o Federation of British Industries passed a resolution appointing a s committee to consider, and to c other interests in regard to, the s tions contained in a memorandum up by the Federation on the trad pression. The memorandum, whic been forwarded to the Prime Mi sets forth the reduction of tax Government economy, and the de ment of export credit schemes, of trade, and of the Dominions an Crown Colonies, as some of the p measures of alleviating the difficul the next few years.

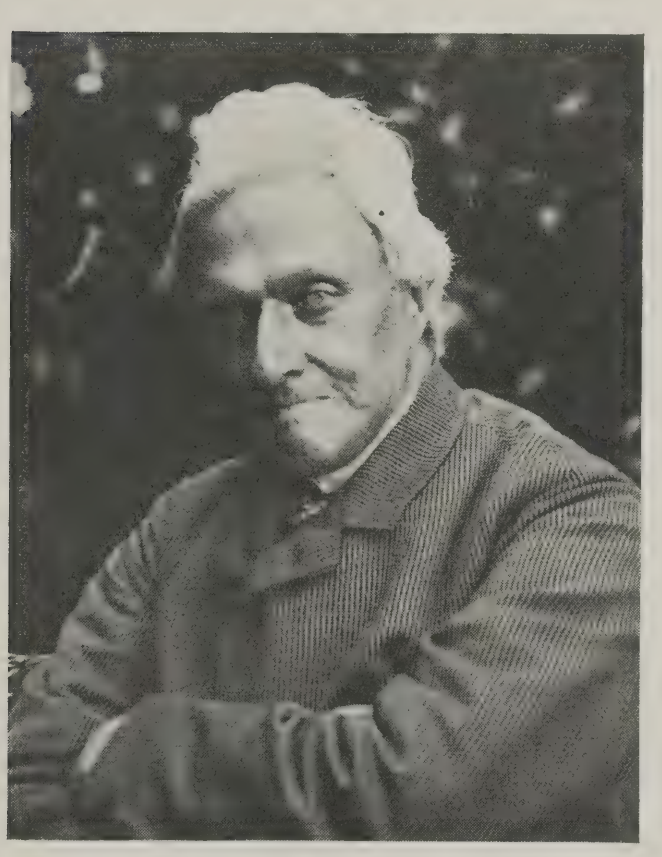
Glasgow Corporation Exhibition's Manager.

An interesting ceremony recently place at the Kelvin Hall, Glasgow, Mr. Charles P. Hainsworth was gratulated by the exhibitors on h pointment as the general manager Corporation Exhibitions. Mr. Watson, of "Gospo" Ltd., Lond moving the resolution, said tha exhibitors were delighted to tak opportunity of meeting Mr. Hains on the occasion of his new appoint The exhibitors all felt that the oc was such that they should extend fellowship to Mr. Hainsworth on h appointment. Mr. Willburn Sco Ramie & Co., Bradbury, enthusias supported the resolution, which was by acclamation. Mr. Hainsworth ably replied.

sday. November 2, 1921. Vol. LIV. No. 1400

THE ARCHITECTS' JOURNAL & Architectural Engineer

With which is incorporated "The Builders' Journal"



JOHN GIBSON, 1817-1892.

John Gibson, of whose life and work an account is given elsewhere in this issue, was one of the small band of architects who carried on the classical tradition during the greater part of the Gothic revival period. A pupil of Sir Charles (then Mr.) Barry, with whom he served during the building of the Houses of Parliament, he afterwards practised very successfully on his own account. He was associated with the R.I.B.A., over a long period, and was at one time Vice-President. He received the Royal Gold Medal in 1890.

27-29 Tothill Street, Westminster, S.W.1.

Architectural Details. 15.—Ministry of Marine, Paris: Overdoor in Salon Diplomatique

J. A. Gabriel, Architect



The Ministry of Marine, which with the Garde Meuble forms the largest part of the group of buildings erected at the end of the Place Louis XV (now the Place de la Concorde) and the design of its buildings, is rightly

THE
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Notes and Comments

Public Interest in Architecture

MR. ARTHUR KEEN always strikes the right note. Any discussion he cares to enter he always illumines without fail, and his contributions to the periodicals, lay or professional, always a joy to read because of their fair-minded uments and common-sense conclusions. We do not h to incur the slightest suspicion of flattering him, but eems only just (and we are sure our readers are with us nanimity) to offer this casual word of acknowledgment the many and varied services to architecture that Arthur Keen is so constantly and consistently ren- ing in the council-chamber and through the Press. letter from him that is printed in our correspon- ce columns this week is typical of his happy method generalizing philosophically and helpfully, and reveals e more his intense love of his profession, and his ever- er solicitude for its highest interests. It is certain that strenuous and ungrudging, though modestly tendered, vices to the R.I.B.A. and to the profession generally, are y warmly appreciated, and we gladly take this occasion offer him complete assurance of a fact that he is much modest to assume. Referring to his letter, it will be nitted by everyone that all the points he makes so grace- y are irrefragably sound. Every reader will gladly ee with his comments on Miss Lena Ashwell's admirable ch on the enlistment of the public sympathy for the ings that matter" in art, and with his conclusion that proper subject to be put very earnestly before the lic is the beauty of common things. There certainly uld be, as he holds, "systematic action in a joint cam- gn" to arouse the public interest in the present position future development of our cities. Less obloquy would (quite unjustly) loaded upon architects if it were more erally and more clearly understood how little can be fairly ected of them unless they can command, and to some nt control, the weight and impetus of public opinion.

An Industrial Theatre Movement

ust now the theatre is, so to speak, in the limelight—a eshing variant, surely, on the limelight being in the tre. In one aspect or another, the playhouse has been ate much under discussion. The fact may be taken to significant of impending changes in design and con- ction. It has been discovered that we have not reached lity, and that the three or four architects (all deceased) had for many years enjoyed a monopoly of theatre- ding had brought it to a condition of stalemate from ch it must be rescued at all costs. Moreover, it has been ized for some years past that the plush-and-mirror se coincided with a deplorable decadence of the drama. usement, and that of the most paltry and frivolous , came to be regarded as its chief if not its only func- . Its loftier traditions were overwhelmed in the welter edroom and bathroom farce, "nights out," and inane te. With these things dignified architecture was rly incompatible, the one thing putting the other to ne. But steadily the drama proper is asserting itself. Shakespeare dramatic societies, Elizabethan stage societies, the recognition of the educational value of the revivals at the Old Vic, the erection of an Elizabethan playhouse at Norwich, the tremendous success of the Gilbert and Sullivan season—all these are portents that the theatre is presently to be put to more dignified uses than have hitherto prevailed. Among those who perceive quite clearly how powerful an instrument of education and how influential an agency for the promotion of morals and manners the theatre could be made, it has long been an aspiration that every town should possess its State or municipal theatre, but the "peasant players" theory seems to have greater organic strength. It has materialized in several directions, and its latest manifestation is at Leeds, where there has been started an "Industrial Drama Movement," from which important developments may ultimately issue. Weavers, and other working folk, are performing several of Shakespeare's plays; and the workers have organized their own orchestra, produced their own scenery and effects, and managed their own stage carpentry. Wakefield is likely to follow Leeds in this high emprise, and there is an ambition to set up a chain of industrial theatres. At present the performances are given in a hired hall; but if the movement prospers, a new type of theatre will be required in almost every township. This promising new movement, which embraces all classes of workers, and many types of institution, including clubs and schools, should not be neglected by architects, if only because of the spirit of co-operation which is its essential feature; and it seems to hold the germs of a great social transformation.

The London University Site Question

Controversy on the London University site question is at full blast. Reviews and newspapers are giving it lavish hospitality. Captain Swinton has espoused the cause of Holland Park with headstrong ardour. Mr. Lowther Bridger, of the Royal Geographical Society, writes to "The Westminster Gazette" a letter that would be finally conclusive if invective had the force and effect of reasoned argument. He has nothing but adulation for Holland Park, nothing but blame for Bloomsbury. "The University," he declares, "will be hidden away in an ugly and obscure quarter of the town, where there can be no amenity, much less beauty, in its surroundings; while certain aspects of the latter must be regarded, to say the least, as very unsuitable for association with young student life. . . . It is to be feared that the dreary, not to say dingy, surroundings there can neither be specially elevating nor even healthful; nor is there any natural attractiveness in the locality of which a happy memory could be gladly treasured in after-years." In all this there is too obvious a bias, too plain an intention to blacken Bloomsbury and to glorify Holland Park, whose advantages "as regards natural amenity and clean and wholesome surroundings are obvious, and such as our more enlightened forefathers, who counted no cost in matters which they considered of prime importance, would not have hesitated for a moment to make their choice." That is gratuitous assumption. So, unfortunately

is this: "Moreover, the same enlightened souls would hardly have been content unless their new creation were formed into a thing of beauty, as an architectural as well as educational adornment of the Metropolis of Great Britain, and they would certainly have had, and not failed to substantiate, the same vision which has long been cherished by so many good Londoners—namely, of a grand new university building upon the western height of Kensington, conspicuous to the world at large." Against this rodomontade it is a relief to set off an admirably judicious article in "The Observer" of October 23. In this article the points for and against each site are impartially recapitulated, the conclusion of the whole matter being that while Bloomsbury has intrinsic advantages over Holland Park as a site for a centralized university quarter, the best possible solution of the question would be "that London University should be given both Holland Park and Bloomsbury, the latter for the university quarter, the former for its hostels and playing fields." If London Pride were anything more than a shabby little plant, that is what would be done, and done quickly. In any case—Bloomsbury or Holland Park, or both—we are optimistic about the erection of a noble university building, such as London ought to have.

Chasing Phantoms in Design

It is often very useful, and is sometimes essential, to restate axiomatic truths. Mr. Arthur Keen, in the letter mentioned elsewhere, throws out casually the useful reminder that it is hard to secure dignity and interest by deliberate contrivance. Here we are given a glimpse of the rock on which so many young architects come to grief. They do not all realize—although of late years the point has been constantly emphasized by professional teachers and writers —the utter futility of resolving to secure these and similar elusive and impalpable qualities by "deliberate contrivance." The utmost that can be done is to strive for the right spirit, study time-honoured principles and traditions, eliminate the weeds and other rank growths from one's own mental garden, work strenuously and hopefully, and humbly abide the issue. Originality, like Pleasure, is a Will-o'-the-Wisp that lures us to chase it, and mocks us when we flounder in the mire. Modern methods of architectural education, however, if not deliberately designed to curb so-called "originality," certainly have that effect.

Dr. Addison on Scottish Housing

In his series of articles on housing that he is contributing to "The Glasgow Herald," Dr. Addison puts so powerfully the case for housing that we wish he had done it before rather than after his retirement. If he had thus taken time by the forelock, there would have been no necessity for his retirement. Some of the terrible facts he adduces are that in Scotland more than half the houses have only two rooms, and fully a tithe of the total are so unfit to live in, and so far beyond repair, that "they need to be demolished in the interests of the public health." Moreover, as might be expected, the overcrowding is so terrible, and until nearly sixty thousand new houses are built, the two million and a quarter and more of people living in houses of one or two rooms must endure this inferno. Here Dr. Addison becomes caustic. "The sum of £30,000 is to deal with all the unsatisfactory one- and two-roomed houses that are capable of improvement, as well as with the demolition and replacement of the 57,669 houses that are unfit for habitation. The Scottish taxpayer is to be satisfied that his money is being spent wisely and to the best advantage when he contributes at the rate of three-halfpence per head per annum for the abatement of these evils in his homeland, and pays up at the rate of eleven shillings and twopence-halfpenny for the improvement of the conditions in Bagdad and Beersheba!" He goes on to speak very gravely of the enormous loss and suffering consequent on these appalling conditions. The insured population of England loses every year an average of fourteen million weeks through sickness, most of it preventable; "and it is difficult to estimate the loss t involves through lack of production, through loss of wag and in other ways to the whole nation. To continue pour out millions in dealing with results, and to devot paltry three halfpence a head to the removal of one of principal causes of this costly waste is neither sensible economical." In a variety of ways that Dr. Addi specifies, these slum dwellings are a costly burden; a the awful irony of the situation is that the City of Glasg for instance, is spending annually on the treatment tuberculous disease alone more than ten times the amo it is allowed to devote to the amelioration of the hous conditions that breed this disease and other diseases al to say nothing of the vice that is a natural concomitant such conditions.

The British Wreath for America

A writer in "The Manchester Guardian" of October protests vigorously—and indeed rather angrily—agai the design of the wreath that is being sent out as a Brit tribute to America's Unknown Warrior. The design in t wreath represents, according to his description, "a group birds dragging a large heart across a shield." He thi the wreath will certainly not deepen among the nations impression made by "the beautiful form that British g took in Sir Edwin Lutyens's cenotaph," which "had gi us prestige among nations in a department where previous efforts had been rather trivial"; and he sugge that an architect—preferably Sir Edwin Lutyens—or ot artist of eminence "should have been called in to give flowers a solemn and beautiful shape."

Reigate Sold by Auction

Many estimable persons find something extremely pugnant in the sale of a town or village by auction. I difficult to explain why this feeling is entertained. Th is, no doubt, some sort of analogy between the sale o town and the sale of a human being; but it is purely fa ful. Besides, the analogy breaks down hopelessly when reflect that the town, if it is knocked down in separate l is not sold into slavery. On the contrary, the transact makes for freedom. At Reigate many of the tena gladly availed themselves of the opportunity of becom their own landlords. But while the inhabitants of a to entirely under one ownership can hardly expect to en unrestricted freedom of action, it is easy to imagine t the independence in which small proprietors revel is of aggressively asserted in a variety of inharmonious wa painting one half of a pair of houses emerald-green and other half sky-blue is a case in point; and a terrace n exhibit as many tints as there are houses. Such ecc tricities of separate ownership should be held in check the authority of a committee of taste and town-planni which every township should regard as being as essen as its Board of Guardians.

Railway Station Design

With the electrification of railways there should com revisal of the stations. Some of them are mere she Very few of them have any architectural style, most of them are destitute of both dignity and comf If the railways succeed in extorting subsidies fron harassed Government, it should certainly be a condit that some of the money should be spent on the impro ment of the railway stations, most of which cry aloud re-planning and rebuilding by an architect. Too m concessions have been made to railways. Something sho be exacted from them in return. All rights and no du make an arrogant corporation. If and when our rail stations come to be rebuilt, it is to be hoped that s attention may be given to the object lessons provided the Continent and the United States.

ohn Gibson of Westminster, 1817–1892

By A. E. HOLBROW, A.R.I.B.A.

T was my privilege as a youngster to live amid the surroundings of John Gibson; and my earliest recollections include a visit to the "office," a subsequent view of the troops returning from Egypt (1882), a day visitors at 13 Great Queen Street (now Old Queen Street), oomy house with a pleasing outlook over Birdcage Walk l St. James's Park.

As a Royal Gold Medallist of the Institute, Gibson's ldings were, and are, known; but the retired life that he towards the end rather tended to diminish public knowge as to his application, ability, and success.

t was therefore somewhat refreshing a few months back find among some of the senior members of the profession reat regard for anything of Gibson's. A collection of es and records, pictorial and otherwise, became a centre attraction, and it may be of interest to present a brief umé.

John Gibson was born at Castle Bromwich, Warwickshire, June 1817, and upon reaching school age, having received good foundation of the elements of learning from his ther, he was sent to King Edward's Grammar School at mingham to add the necessary finish to his education.

Of all his letters none seems to have been cared for more n those he received during his school life and early siness career from his mother. So much was this parent that, upon the administration of his estate in 1893, original old hair trunk of his school days was found full hese letters.

In 1836, John Gibson, then age 19, came to London, "by the Greyhound Coach in twelve hours from Birmingham," and began his professional career as a pupil of the late Sir Charles (then Mr.) Barry. At this time the offices were situated in Foley Street, Westminster (eventually transferred in 1841 to Great George Street, when the Houses of Parliament demanded more attention), and from this date until the end of his career Westminster was the centre from which all Gibson's work went forth.

The old Palace of Westminster had been burnt down in October 1834, and at the time of Gibson's entry into the office Mr. Barry was engaged upon the gigantic work of erecting the present Houses of Parliament. Particularly happy seem to have been the terms of intercourse between the master and his pupil. A friendship ensued which remained until the death of his first and only chief. This was commented upon by the late Mr. C. Barry at the presentation to Mr. Gibson of the Gold Medal in 1890, half a century and more after his entry into the office of Mr. C. Barry's father.

Evidently determined to master all the intricacies of the profession, he made and collected a wealth of notes, sketches, facts, and figures. Obviously a labour of love, they show the research not only applied to old work in the architectural sense, but as required also in the practical and original side of an architect's practice—materials and sources of supply.



THE NATIONAL PROVINCIAL BANK OF ENGLAND, THREADNEEDLE STREET (1864).
JOHN GIBSON, ARCHITECT.

After nine years with Sir Charles Barry (six years as pupil and three as assistant) John Gibson won the competition for the premises for the National Bank of Scotland, and commenced the practice which grew and flourished, only to be relinquished when failing health gave him warning to cease active work.

The honours of his profession he did not seek, and was very loth to be acclaimed by his peers, but he was (to use his own expression) "dug out of his hole," and we find John Gibson as the Royal Gold Medallist of 1890. Some time a Vice-President of the Royal Institute of British Architects, and member of the Council 1855, 1856, 1865, 1866, 1877 to 1885, he naturally took an interest in the affairs of the premier body; but it was a labour to him to attend public functions, and he remained at heart a recluse and a hermit, but always a student. The transactions of the R.I.B.A., June 1890, express in forcible language the opinions voiced by his brother architects.

Gibson's public works were numerous and varied, but probably the greatest set of monumental records are found in the structures erected for the National Provincial Bank of England. At the presentation of the Royal Gold Medal the President, Alfred Waterhouse, R.A., said:

"By far the most remarkable of Mr. Gibson's professional connections is that with the National Provincial Bank of England. This great company apparently employed nobody but Mr. Gibson as its architect as long as he remained in practice. He built for them not only the very striking and original head office in Threadneedle Street, and the first branch bank in Piccadilly, but upwards of forty branches, some of them, as at Birmingham, of great merit and importance."

Later in the proceedings we find Mr. Charles Barry (son of Sir Charles Barry) saying:



TODMORDEN TOWN HALL (1870).

"In the quiet and unostentatious life which Mr. Gib had led, he had been a hard and zealous worker, imb with the most infinite artistic feeling, as well as with g powers, constructive and otherwise. All his works w distinguished by a plain solidity and a refinement of fee combining excellent proportions and purity of de without straining after those ruinous fantasies wh nowadays seem to be so attractive to the public."

From 1844 to 1883 Gibson designed and erected buildi in practically every county in England; and these structu



DESIGN FOR THE NATIONAL BANK OF SCOTLAND.
JOHN GIBSON, ARCHITECT.

Modern Architecture. 5.—Premises of the Society for Promoting Christian Knowledge, Northumberland Avenue, London

John Gibson, Architect



John Gibson was prominent among the small band of architects who carried on the classical tradition during the mid-Victorian period. The building of the Society for Promoting Christian Knowledge—the first to be erected in Northumberland Avenue—is a characteristic example of his work.

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NATIONAL PROVINCIAL BANK OF ENGLAND, NEWCASTLE-ON-TYNE.

ıde the important head office of the National Provincial
< in Threadneedle Street, Todmorden Town Hall,
es in Northumberland Avenue for the Society for Pro-
ng Christian Knowledge (the first building erected in
humberland Avenue), Child's Bank at Temple Bar,
dozens of other premises. Invited to compete in the
ed competition for the new Law Courts and National
ry he had to decline owing to the work in hand for
ıte clients.

bson's work upon public business premises outshone
ther efforts, but the domestic and ecclesiastical designs
ed out show a great versatility of construction and
ght. At Charlecote he built the church, lodges and
, and a bridge and other work is to be seen at Plas
r, Wrexham, Dolroyd Castle, Nutfield Priory. As
ssing the satisfaction of his clients a contemporary
ne 1900 records :—

When you come to look over that list (of domestic work)
will, I think, deduce from it the inference that Mr.
n's clients were all very fond of him. When they had once discovered him they found him a treasure. They stuck to him and never dreamt of looking about to see if anyone else could be found to take his place."

The famous local landmark, Bodelwyddan Church, St. Asaph, is probably Mr. Gibson's best effort in church building, an opinion supported by the late Sir Gilbert Scott, who gave this building unstinted praise. The Romanesque Bloomsbury Chapel of 1847, Shenstone Church, 1852; Todmorden Unitarian Church, 1865; Bersham, 1873, are amongst the ecclesiastical structures designed and erected by him.

Gibson was, however, a powerful exponent of the classic school, with a fine sense of proportion and great ability in massing and grouping. Coupled with soundness of construction, and treatment in character consistent with the use of his building, these qualities made an ideal combination.

The late S. Flint Clarkson, F.R.I.B.A. (one-time Mr. Gibson's chief assistant, and later District Surveyor to the Royal Borough of Kensington) wrote as follows :—

"Little work of any date can have been better reasoned than Mr. Gibson's—'That is the line to make powerful,' he said . . . . . when a design was being worked at, of windows with semicircular heads, and an angle doorway belonging to them, but required to assert itself strongly . . . . The appearance of finish resulting from skill and painstaking, combined with the absence of innovations, rendered his buildings well fitted for their purpose, and the intense respectability inspired confidence." (R.I.B.A. Journal, November 7, 1908.)

From the time he gave up active practice in 1886, Gibson withdrew even more than before from all social functions. At first his club, St. Stephen's, was mainly his home, but he spent an occasional week-end with friends, or a short stay at a watering-place.

Gradually he went out less and less, until towards the end he rarely left his house in Westminster, and spent his time in his pleasant rooms overlooking St. James's Park, quite satisfied with his "Times," his professional journals, and books. A few old friends would call and rouse him for an hour or two, perhaps share a meal, but beyond that he lived until the end a lonely bachelor life.

The last work he advised upon was the completion of the tower to Bersham Church for his old friend T. L. Fitz-Hugh, in 1891, and the last detail necessitating the use of his pencil was the finial, a stone cross. This he corrected and altered with almost pathetic care—his last design, the apex stone of his career.



IMBERHORNE, EAST GRINSTEAD, JOHN GIBSON, ARCHITECT.

The Roof of Hereford's Booth Hall

IT is not easy to realize the possibility of a large building of historic and civic importance remaining in existence and for all knowledge of its existence to be completely lost. Yet this was the case with the ancient timber-built structure known as the Booth Hall, in the City of Hereford. There are a few books which refer to a Booth Hall having once existed somewhere about the discovered site, and some refer to it as being demolished.

The discovery was made in quite a startling manner. While some builder's men were carrying out repairs to a modern chimney breast in the kitchen department at the end of the building, the whole of the stack, which was simply placed against the adjoining property, without any tie or support, collapsed, demolishing portions of the roof and the ceilings of the bedrooms. The fall, which brought a whole mass of debris into the kitchen below, exposed some fine old oak beams and rafters, and, on closer inspection, portions of carved and moulded work.

Owing to its dilapidated and decayed condition the ancient work was considered by the owners, Messrs. Arnold Perrett & Company, of Wickway, brewers, to be past repair, and preparations were made for its removal and replacement by a modern deal structure, but members of the Hereford Woolhope Club, a local society whose chief interest is to record, and if possible, preserve and restore the ancient work of its county, successfully prevailed upon them to carry out a restoration scheme. Special thanks are due to the company for the preserv at heavy cost, of this beautiful roof lovers of ancient work.



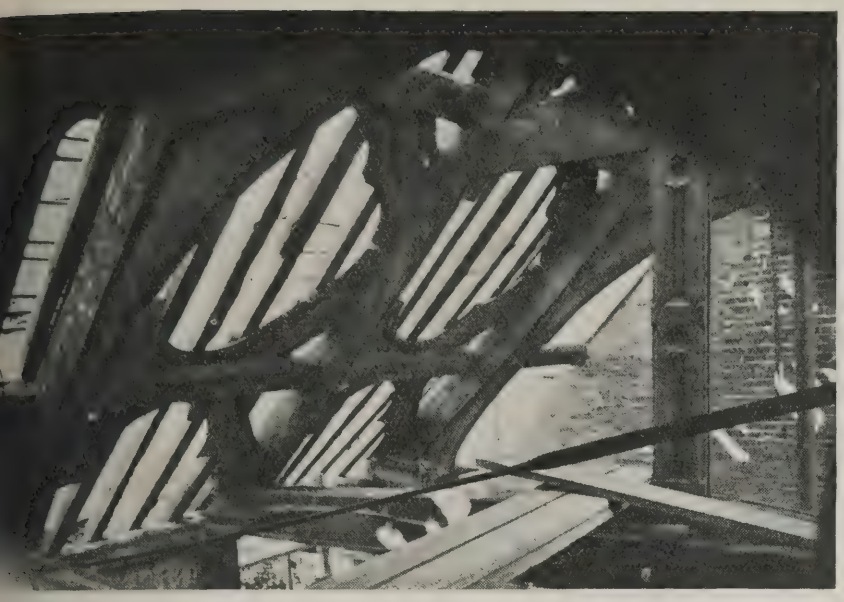
PORTION OF CUSPED PANELS TO TIE BEAM PRINCIPALS.



On further examination, and aft partitions and the ceilings of the ol bedrooms formed in the upper part roof had been removed, three han hammer-beam principals and tw beam principals were discovered hammer-beams having carved br with figure heads, and the tie-beam cipals, with panelled king posts tained beautiful tracery panels. wind-braces between the principals ate and strengthen the structure, a very handsome appearance to th

The sides of the building conta small portion of half-timbered oak ing in a very decayed condition. structure undoubtedly stood expo the four sides similar to the old halls, etc., which once existed county, but owing to the encroach of the modern brick buildings, abutted against the structure on it sides, the greater portion of its mai ing had been removed, the few rem uprights being filled in with brick restoring the building this framin been preserved as far as possibl similar timber used, the positions windows found, and mullioned wi of a similar character have been pl the openings. A fireplace, wit mantelpiece, has been inserted, and thing has been done to preserv ancient features of the building, w result that a fine room, 42 ft. by 27 full space of the discovered porti been secured for use in connectio the hotel it now forms part of. room, which was officially open October 27, is open to the publi will prove to be one of the most in ing features of Hereford City.

Local antiquarians state that reign of Richard II the licenc granted the Chief Bailiff—a di raised in 1384, according to Ri charter, to Mayor—of the City and to purchase the Booth Hall te and site for a municipal buildi



PORTION OF ROOF SHOWING WINDBRACES, ALSO KING-POST TO ROOF PRINCIPALS.

Subsequently the place was used house of detention for Freemen or sons who had committed minor es which could be purged by pay- of a fine, and also for bankrupts. 5 it served as a town hall for Welsh s, and thereafter as the head- rs of the Mercer's Company.

earliest mention of the hall appears in February, 1393, when King rd II granted a licence to the Mayor ommonalty of the City to acquire essuage belonging to Thomas Chip- m and two others "because they have use in which sessions of justice e held." A grant of the same ses in the previous year, September, from Henry Cachepolle to the same as Chippenham and two others bed it as the "Tenement called e Halle," and there thus appears to le doubt that the Mayor and citizens ased a hall ready built, and not y a site on which to build one. The arly architectural style of the wood- (early fourteenth century) makes it ble that the present remains date 1392.

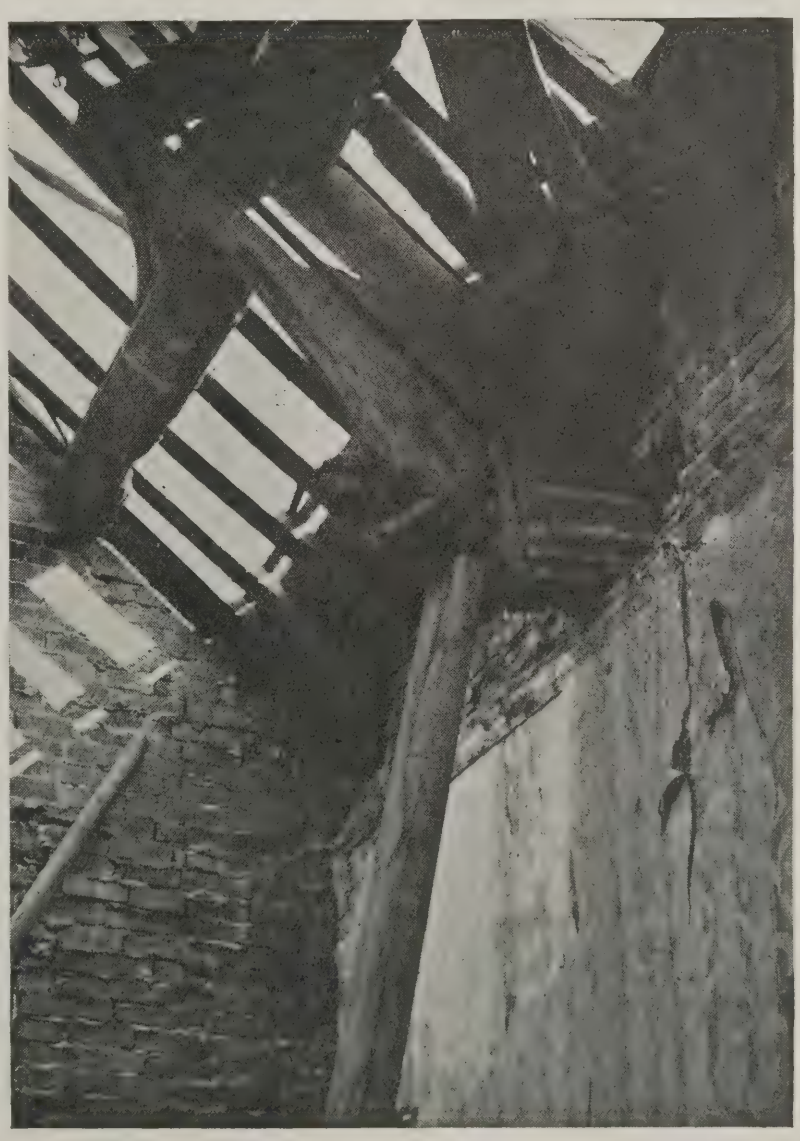
work of restoration has been car- out under the superintendence of erbert Skyrme, M.S.A., of Hereford, ber of the Woolhope Club, who gave vices gratuitously. Messrs. Collins Godfrey, of Tewkesbury, executed of work, and Messrs. Martyn, Ltd., eltenham, the panelling, fireplace, amination and a few for the District Surveyors' examination formed almost the only deviation from the leisurely routine work of the office. The establishment of the Standing Committees, and more particularly the institution of the obligatory examinations very largely increased this work. In connection with both of these new departures I was brought closely in touch with Mr. Tayler, and his work in connection with the examinations, of which for many years he had almost the entire control, was very heavy. I shall always remember the assiduous and careful attention which he gave to this work, and the Institute owes much to him in connection with it. He also had a great deal of the secretarial work on his hands during the interregnum after Mr. White's death, and again after Mr. Locke's resignation. Mr. Tayler will be much missed, and every one will wish him many years of health and happiness in his retirement.

.B.A. Assistant Secretary Retires

H. G. Tayler, the assistant secre- f the R.I.B.A., is retiring, after a period of efficient and honourable at the Royal Institute. Writing current issue of the "Journal of the Institute of British Architects," ohn Slater, F.R.I.B.A., says: I ber Mr. Tayler more than forty ago, when he was an active junior nt to the late Mr. W. H. White. ork of the Institute then was very nt from what it is now. An occa- candidate for the Voluntary ex-

The Old London Bridge Arch

The Chairman of the Bridge House Estates Committee has stated at a meeting of the City Corporation that the arch of old London Bridge recently uncovered could not be preserved. As trustees for public funds, the Corporation could not contribute to the expense of removal and re-erection, which would cost over £5,000. To leave the arch in position would mean the erection of an arch over the remains, which would decrease the available floor space of the new building.



CARVING TO PORTION OF HAMMER-BEAM ROOF PRINCIPALS.

Fountains Abbey*

By CHARLES GOURLAY, B.Sc., A.R.I.B.A., F.S.A. (Scot.)

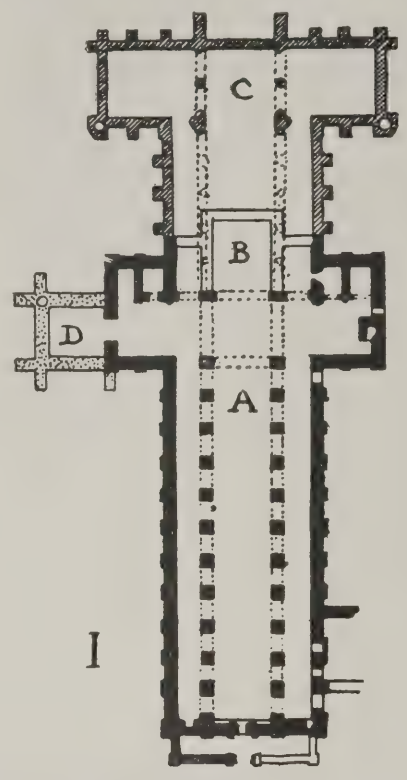
WHEN we study those monastic buildings (often in ruins) which are dotted all over our land, we find a wave of inspiration coming over us, and a secret longing arising within us to find out how they were built and how their architectural effects were obtained. The result of our study should be that our daily routine becomes uplifted into the higher plane of life, in which enthusiasm and love of our work are the impelling forces.

Those excellent qualities we admire in architecture were not arrived at by chance, but by the gradual development from the original idea in the mind of the designer, where it grew until it blossomed into the building whose forms are admirable in proportion and beautiful in detail. Such a result can only be attained by the development of taste, and something must be studied in order that taste may grow. Now, in the training of the architectural craftsman, the study of old buildings takes an important place, because, by studying the best work of the past the taste of the craftsman becomes more refined, more developed, and, indeed, by this study being sufficiently engaged in during youth, the mind becomes so saturated with good things that the designer becomes possessed of a cultured taste.

This study of old work does not mean that the student will copy and so repeat the old in a new design. No; it means that the spirit of the old tradition will so influence him in his thoughts that the new work he produces will be marked by the same high qualities as the old. In other words, his own work will be well proportioned, symmetrical, the solids and voids will be properly balanced; while being graceful and refined it will, nevertheless, have the appearance of strength. To sum up, it should be full of life, not a dead application of rules, but the sympathetic application of these to new conditions.

With regard to the planning of monasteries let us appreciate the fundamental fact that they were planned for everyday use. The builders of an abbey generally desired to get as far away as possible from towns in order that their whole life might be devoted to the worship of God. They required a series of buildings in which to work and live close to a church to which they could readily proceed at practically all times of the day and night. And in order that this—the essential reason for their common life—might be emphasized, their church had to be the chief building of the group. It is an important principle in good design that the chief building in a group must always occupy a more important position than minor buildings.

The plan of the church generally consisted—like that of Fountains Abbey—of nave and choir with aisles, and of north and south transepts having chapels to the east. The great tower of Fountains to the north of the transept was added later,

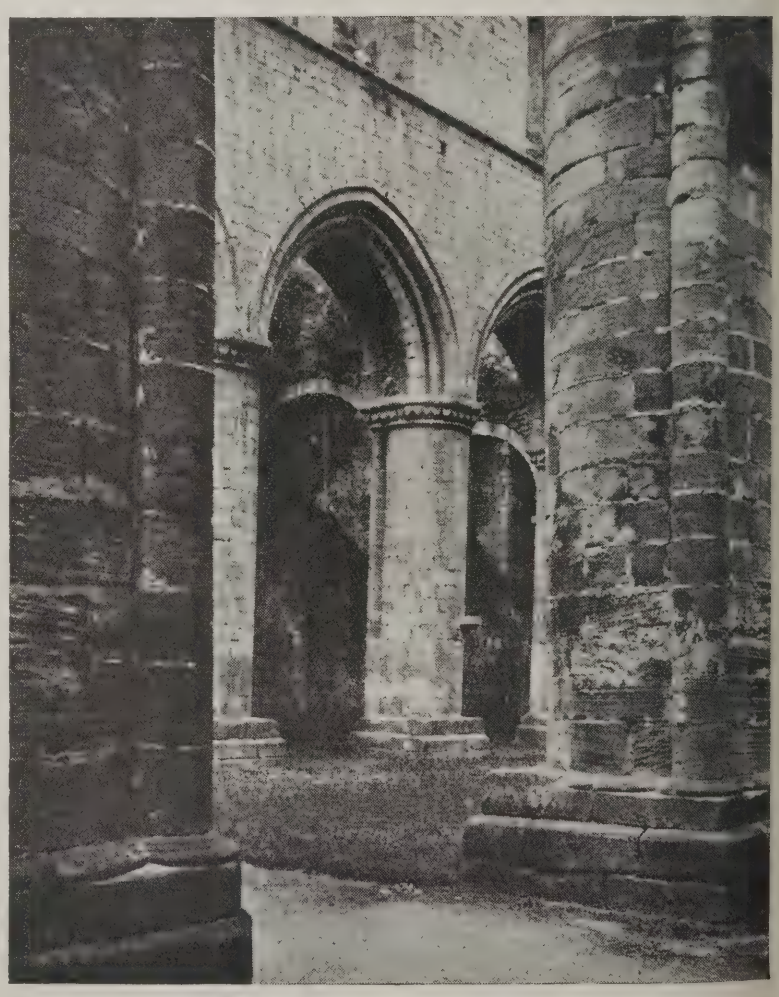


FOUNTAINS ABBEY: PLAN

as was also a great eastern chap taining nine altars to accommoda increased number of canons. The worshipped in the choir, the conv the nave.

The cloister was a covered walk the four sides of a square. It con the well, the lavatory for washin The side of the cloister which got sun—the warmest—was used for the writing of books, etc. There press, called an Aumbry or Armari one of its walls, lined with wood, in the books were kept. Beginning east processional doorway on th walk of the cloister, next the tra was the book-closet or vestry, a r vaulted apartment, used as a pass later times. Next to it is the ch house, a fine apartment, 83 ft. in l three bays wide by six in length. two west-most bays, being cut off t a vestibule, were not so high a others on account of the dormitory a The stone bench round the chapter was covered with wood or plaited for the monks to sit upon. The r all gathered here after the first h the day for the discussion of bu matters. Each one was here told wh had to do during the day, etc.

South of the chapter-house is th lour in which the monks might con



FOUNTAINS ABBEY: VIEW ACROSS NAVE.

* Extracts from an illustrated lecture at a meeting of the Royal Technical College Architectural Craftsmen's Society, Glasgow, over which the President, Mr. J. C. Bannantyne, presided.

ing was not allowed in the cloister.
arlour is rib-vaulted, and has a
it each end making it a very
ity place. Next there is the under-
f the monks' dormitory, which was
r, its north end being used as a
e between the cloister and the
ary.
ve all these rooms and extending
ll length of the range was the
' dormitory, for the inhabitants all
on the upper floor, not on the
floor. These buildings had no
proof courses in their walls, and no
g arrangements throughout them.
' case it is much more healthy to
one story up from the ground,
lly in winter time, when the
air is damp and cold. The
ory was generally as near the
as possible, for the monks had to
n by the stairs in procession to the
at midnight.
g the south walk of the cloister is
arming-place, which had two large
es at Fountains. This was the
om where there were fires at which
nks could warm themselves. Then
ne lavatory, where they washed their
and sharpened their knives on a
one before they entered the refec-
atry, or dining-hall, where the whole
nity had their meals. The kitchen
s scullery, the cellarium or great
or food and wine, were in a room
which the lay brethren slept.
' a monastery there was always a
or stream which would act as a
and above it were situated the
ria of the monks and the conversi.
here were the great infirmary with
n chapel, cellarage, kitchen, etc.,
ser infirmary for the lay brothers
e same dependencies, and the guest
Other buildings within the outer
the abbey were the gate-house,
ill, the brew-house, etc., farm
gs, including granaries, fish-ponds,



FOUNTAINS ABBEY: BRIDGE UNDER CELLARIUM.

and many other buildings. The fields to be cultivated were outside the abbey walls.

After showing and describing more than sixty lantern slides of the most interesting details of a number of monastic buildings in various parts of the country Professor Gourlay said: These beautiful English monastic buildings were not erected as exceptional structures, but just to fulfil the ordinary conditions and requirements of their time. We cannot but love, admire, and praise them, for do they not show us how the mediæval architectural craftsmen gave, quite naturally, expression to their higher thoughts in their daily work? Let us, therefore, in all our present-day routine similarly make our efforts the best we are able to give in every sense, then we shall have no need to fear what a critical posterity may say about us or our work.



FOUNTAINS ABBEY: VIEW OF SOUTH AISLE OF NAVE FROM WEST.

The Industrial Council for the Building Industry

The quarterly meeting of the Industrial Council for the Building Industry (Building Trades Parliament) will be held at Montagu House, Whitehall, London, S.W.1, on Thursday, November 10, at 2.30 p.m., and on Friday, November 11, at 10.30 a.m., for consideration of the following business. At 2.30 p.m. on Friday the honorary secretary of the British Industrial "Safety First" Association (Mr. H. E. Blain, C.B.E.) will give a short address on the work and methods of the Association.

Agenda.

1. Notice convening the meeting.
2. Minutes of last meeting and matters, if any, arising therefrom.
3. Receive treasurer's report, and consider, on recommendation from Administrative Committee, estimate for current year.
4. Consider report of Safety and Welfare Committee on Draft Regulations for Woodworking Machinery. (This Report is printed as Appendix "C" to minutes of Annual Meeting. Members are requested to bring to this meeting the copy already in their possession).
5. Receive Reports, if any, of Council Committees, and if thought proper, resolve thereon: (*a*) Administrative Committee; (*b*) Management and Costs Committee; (*c*) Safety and Welfare Committee; (*d*) Education Committee; (*e*) Re-settlement Committee.
6. Receive, and if thought proper, resolve upon (*a*) communications, if any, from Government Departments, and (*b*) any other correspondence.
7. Election of Committees.
8. Any other business.
9. Date and place of next meeting.

Following is a list of the members of the Council Committees. The officers are members, *ex-officio*, of all committees:—

Administrative.—Employers: Messrs. J. Storrs (chairman), E. J. Brown, E. Bruce (Scottish), J. H. Cantrill, J. P. Cox, S. Easten, T. Foster, T. Graham (Scottish), S. Smethurst, H. Willcock, and A. G. White. Operatives: Messrs. T. Barron (vice-chairman), W. Cross, A. Gardner, J. A. Gibson, G. Hicks, L. MacDonald, T. Otley, R. Wilson,

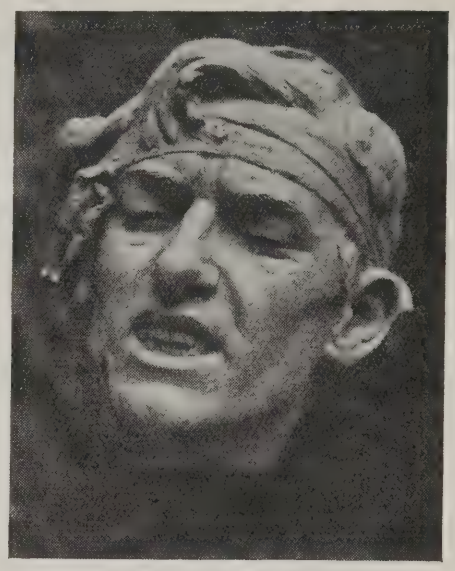
S. J. Wright, W. Williams (one vacancy). Professional: Messrs. J. S. Gibson and R. W. Kearns.

Management and Costs.—Employers: Messrs. T. Foster (chairman), J. P. Cox, T. Graham (Scottish), H. T. Holloway, G. Rome (Scottish), S. Smethurst, E. J. Strange, and F. G. Whittall. Operatives: Messrs. W. Cross (vice-chairman), J. F. Armour, J. Gregory, G. Hicks, R. Jones, L. MacDonald, W. Williams, and R. Wilson.

Safety and Welfare. — Employers: Messrs. J. P. Cox (chairman), J. Storrs (one vacancy, Scottish). Operatives: Messrs. T. Barron (vice-chairman), F. Kennedy, and H. McPherson.

Education.—Employers: Messrs. S. Smethurst (chairman), D. Anderson, E. Bruce (Scottish), J. H. Cantrill (hon. sec.), R. B. Chessum, J. P. Cox, A. J. Forsdike, J. M. Macfarlane (one vacancy). Operatives: Messrs. T. H. Otley (vice-chairman), T. Chew, A. Gardner, J. A. Gibson, A. Gill, R. Mardell, H. McPherson, R. Wilson, W. Williams (one vacancy).

Re-settlement Committee.— Employers: Messrs. D. Anderson, E. J. Brown, J. P. Cox, A. J. Forsdike, T. Foster, F. J. Gayer, T. Graham (Scottish), W. Moffat (one vacancy). Operatives: Messrs. J. Armour, J. Chew, W. Cross, W. Glover, G. Hicks, S. Stranks, S. Taylor, W. J. Wentworth, R. Wilson.



HEAD OF BRONZE FIGURE ON CROYDON WAR MEMORIAL.

exceptional cases, no compensation had been paid, or was contemplated being paid, to builders in respect of the suspension of the housing scheme. The total amount involved was less than £25,000. The contract prices for A and B type of houses, approved by the Ministry of Health during March and June of year, were:—March: A, £808; B, June: A, £722; B, £823.

Coming Events

Friday, November 4.

R.I.B.A. Fancy Dress "Guy Fa Ball, 9 p.m. to 5 a.m.

Royal Technical College Architec Craftsmen's Society, Glasgow. — Evolution of the Castle." By Mr. G Neilson, LL.D., F.S.A. (Scot.).

Surveyors' Institution and Qua Surveyors' Association.—Meeting Great George Street to consider pro for arriving at a settlement with Ministry of Health with regard t payable in respect of housing sch where a number of surveyors are en on different sites forming one scheme where schemes have been wholly o tially abandoned.

Monday, November 7.

R.I.B.A. President's Opening Ad 8.30 p.m.

Wednesday, November 9.

Industrial League and Council.— dustry and Its Relation to Finance." E. J. Garmeson.

Royal Society of Arts.—"The Wo the Industrial Fatigue Research B and Its Applications to Industry." Mr. D. R. Wilson, M.A., secretary o Industrial Fatigue Research Board. 8

Parliamentary Notes

By our Special Representative.

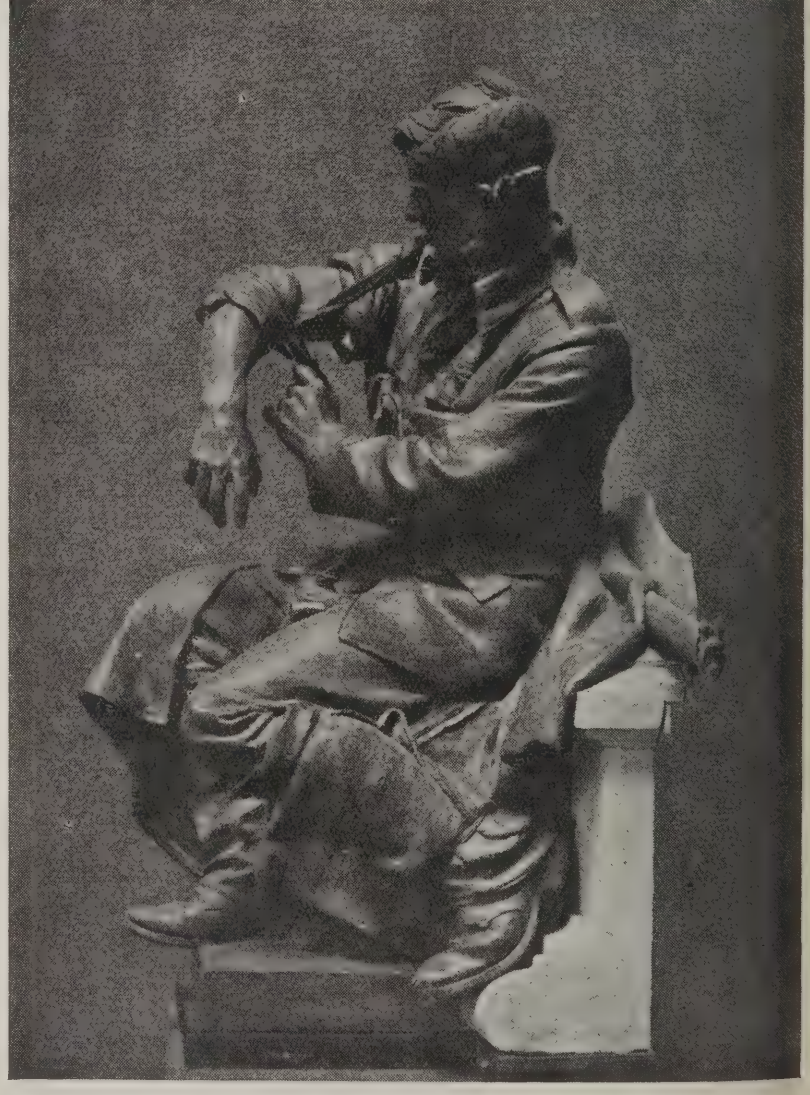
In the House of Commons Sir J. Gilmour, replying to questions on behalf of the First Commissioner of Works, said that the Office of Works Department was at present engaged on 47 housing schemes for 32 local authorities. Four schemes had been completed. Answering further questions, he said that it was hoped to evacuate the Government huts and other temporary buildings on the Embankment by December 31, and the bulk of those in St. James's Park early in the new year.

Mr. Kellaway, the Postmaster-General, stated that it was not intended to utilize the vacant site formerly occupied by the General Post Office in St. Martin's-le-Grand. The site would be disposed of when an adequate offer was received.

The number of buildings completed under the Housing (Scotland) Acts up to September 30, according to Mr. Pratt, the Scottish Under-Secretary for Health, was 2,961 permanent houses and 406 temporary houses. There were under construction 11,989 permanent and 58 temporary houses. In addition, 952 houses had been completed by private persons under the provisions of the Housing (Additional Powers) Act of 1919, and certificates of approval of houses to be erected under that Act had been issued for a further 2,132 houses.

It is not the intention of the Admiralty to embark on a housing scheme for employés at Rosyth, but, said Commander Eyres-Mansell, the Financial Secretary to the Admiralty, the question of whether further houses should be erected by the Scottish National Housing Company for this purpose was the subject of correspondence between the Treasury and the Scottish Board of Health.

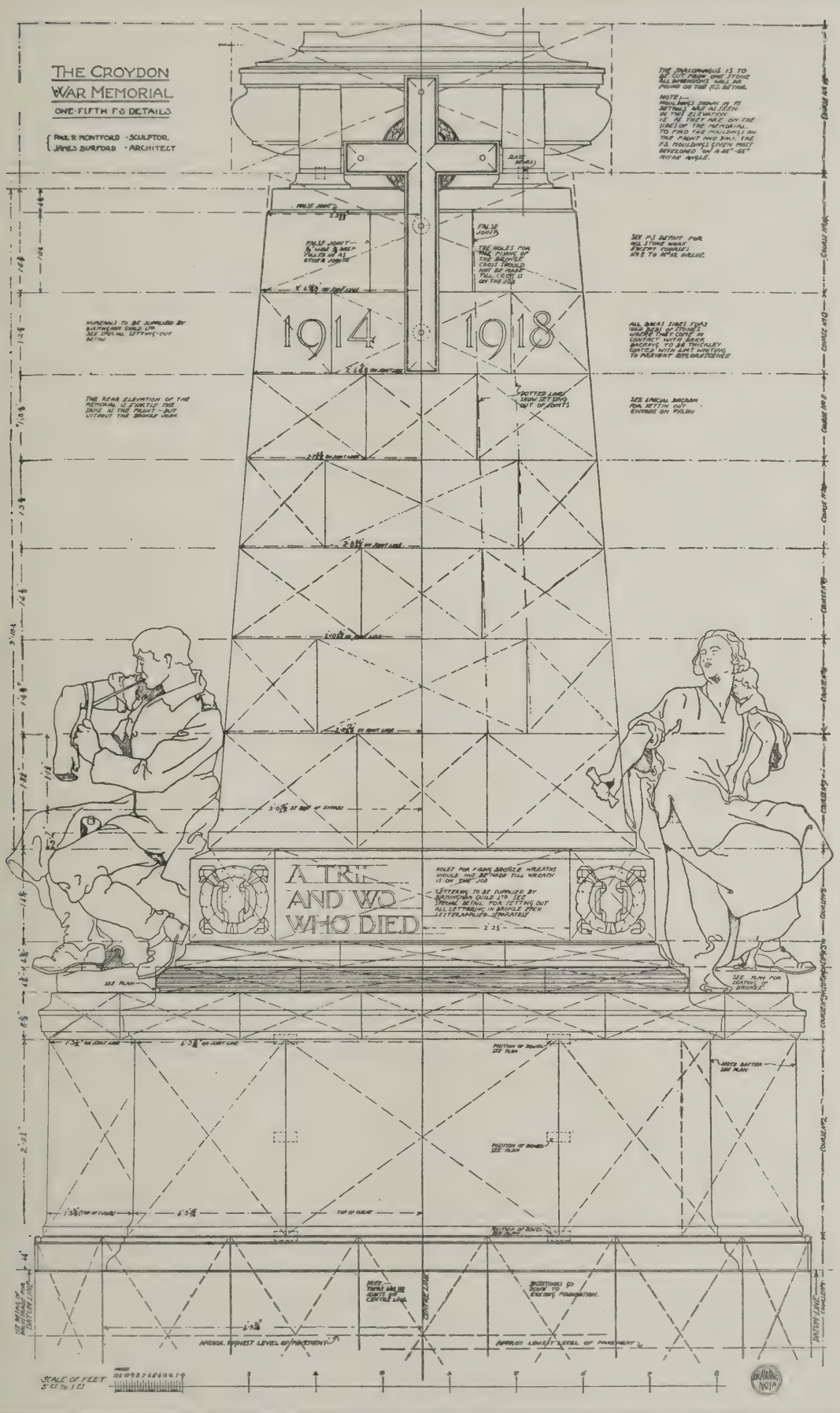
Sir A. Mond, the Minister of Health, replying to a number of inquiries on housing matters, said that, except in one or two



BRONZE FIGURE ON THE CROYDON WAR MEMORIAL
PAUL R. MONTFORD, SCULPTOR.

War Memorials. 21.—Croydon

Paul R. Montford, Sculptor. James Burford, Architect.



This memorial has just been unveiled by Lord Ashcombe, Lord-Lieutenant of the County of Surrey. The bronze figure illustrated on the opposite page was cast in one piece by M. Manenti, of Fulham Road, and was exhibited at this year's Royal Academy.

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Correspondence

ɔw to Revive Public ɔnfidence in Building

the Editors of THE ARCHITECTS' JOURNAL.

ɜ,—I have read with considerable ɜt the article in your issue of the inst., written by Mr. C. H. B. ıell, on "How to Revive Public ence in Building," and I had pre- ɣ read Mr. E. J. Hill's contribution subject.

ny opinion it is quite time now to writing and talking on the subject lding until the following strenuous is pursued to its satisfactory com- ı, viz. :—

'o clip very closely indeed the wings ry trade union leader.

'o make it penal for any man, or men, to interfere directly or in- y with the British workman, to ıt him working as long as he likes r what wages he likes, the Govern- stepping in only to prevent any ɔt at "sweating."

'o repeal immediately what is nistically termed the "Peaceful ısion Act."

'o bring all trades union funds the law.

'o prevent by law any what are l "Shop Stewards" (but whom I 'Spies") from exercising their ne- ɜ practices either on the building or workshop.

'o give complete power and inde- ıce to all foremen and employers that their employés return a fair work for a fair day's pay.

il all the above conditions are com- vith it is, in my opinion, absolutely , and a waste of time, to discuss ɔject of "How to Revive Building."

WM. WOODWARD,
F.R.I.B.A., F.S.I.

the Editors of THE ARCHITECTS' JOURNAL.

,—In America they are asking the ɔn, "What is wrong with the ıg Industry ?" and attribute the n there in part to conditions which e against craftsmen putting forth est efforts, to the want of recogni- f the fact that any co-operative to render service to all imme- concerned must be extended to nmunity at large, and to the lack ɔreciation by the people of the ɜ which the architectural profession ıder to society.

ı this country similar conditions , complicated by other drawbacks l upon by your other corre- nts, does this necessarily imply a ɔf confidence on the part of the in building, so much as want of nce in any prospect of an early to those stable conditions of in- and commerce which have been so lisorganized as a result of the late If we can do something to revive y generally, the first to feel the would be the building industry.

ır only the views of individual ɔts and builders have been voiced columns on this subject, and the opinions of the indispensable third party, the potential building owner, have not been expressed through the same medium, or elsewhere, so far as I know.

Do you think it would assist in the consideration of this grave problem if representatives of the public whose confidence we wish to secure could be brought more closely into touch with the representatives of the building industry, so that we might know if there are any difficulties existing which we have not yet tackled ?

I should rather deprecate the setting up of any more committees, and would suggest that the whole question is possibly within the scope of the Building Trades Parliament, a representative body, one of whose objects it is to focus the views of the industry and to promote and protect its interests.

The suggestions which I have made may be considered to be impracticable and even unnecessary, but I put them forward as a contribution to the discussion. They are personal and not in any sense necessarily those of the Society which I have the honour to serve.

C. MCARTHUR BUTLER,
Secretary of the Society of Architects.

To the Editors of THE ARCHITECTS' JOURNAL.

SIRS,—The problem "How to Revive Public Confidence in Building" is entirely an economic one, and in time things will no doubt gradually right themselves, but the process will be a slow one. Prosperity in the building trade depends almost entirely on the prosperity of our chief manufacturing industries. The latter when prosperous increase the material wealth of the country by exporting their products, and a portion of the wealth thus created is expended on houses, factories, warehouses, and so forth.

The building industry of itself does not directly create national wealth, as its products cannot be exported. Its prosperity, therefore, cannot be restored till other industries are able to find outlets for their products in foreign or colonial markets on a profitable basis.

The chief barriers to prosperity in the industries of this country at the present time are the high cost of production and the abnormal condition of the exchanges. The foreigner will not buy because he cannot pay the price. The result of all this is that no profits are being made by the majority of our industries, in fact many of them are incurring heavy losses.

To raise money for building purposes the client, seeing he is not receiving any profits, that is, no income from his investments (I speak generally, of course), would require to draw on his capital. In the majority of cases, however, it will be found that this capital has depreciated by 50 per cent. or more, and to realize would result in a heavy loss. Supposing he did realize, it would mean that his building would cost him just about five times pre-war cost. Present building costs are at least two-and-a half times more than pre-war, and this has to be doubled if he takes into account, as he must do, the 50 per cent. depreciation on the capital he has realized for this purpose. How many clients would face building under these conditions ? He could of course pledge his capital and borrow from his banker, but most business men, under present conditions, are unwilling to resort to borrowing, and bankers are not too anxious to lend.

In addition to all this there is the excessive taxation, both Imperial and local, which greatly curtails the spending capacity of the business man, and forces him to remain content with things as they are, or to wait till conditions become more normal.

Confidence can only be restored when the industrial world settles down to work on a profit-earning basis, but owing to the economic and other reasons which I have indicated, I am of opinion the building trade will be among the last, unfortunately, to benefit in any such revival. I do believe, however, that when our turn does come, a very large amount of building work will be undertaken, more particularly in the commercial class of building. After all these lean years, with their handicaps and restrictions, a resumption of work on an extended scale would be welcomed by the profession at large, but I cannot think of anything that we, as a profession, can do to hasten such recovery.

JAMES MILLER.

"Beauty in Common Things"

To the Editors of THE ARCHITECTS' JOURNAL.

SIRS,—You have conferred a great pleasure on your readers by printing Miss Lena Ashwell's speech at length. Appreciation of the beauty of England could hardly be more complete, or the expression of it in a few words better or more adequate. She realizes not only the external fact of beauty, but also the significance of it, the relation of one factor in it to another, the meanings of history that appear in it, and the bearing of it on the future. "The future is being created now, and we are inspired by the memory of the beautiful actions and the beautiful buildings of our forefathers." This is what ought to be, but, as Miss Ashwell clearly shows, the appeal of these things tends to fail by sheer force of their familiarity. We are so used to the things that impress her deeply that we fail to grasp their significance, and, as the old methods by which tradition was handed down have been dropped, the future is in danger of falling far short of what we hope for.

The surest guarantee that future developments will be properly dealt with lies in appreciation of the beauty of existing things; and while we may assume that architects will estimate the work of the past at its true value, it is necessary for the general public to be led into sympathy with those things that in Miss Ashwell's view mark the difference between an old country and a new one, and give the dignity and interest that are so hard to secure by deliberate contrivance. Architects themselves must foster this sympathy by coming more freely before the public and speaking plainly on the subject.

(Continued on next page.)

I am always struck with the interest that laymen are ready to take in architecture, and their willingness to be instructed in it. A lecture on almost any matter connected with it attracts an audience, as witness the attendances at the recent popular lectures at Conduit Street, at those in Carpenters' Hall, and at university extension lectures everywhere. If architects will take the trouble to prepare the material, they will find it accepted willingly and even eagerly.

It is easy in London and other cathedral cities to direct attention to the beautiful things that have been handed down, but there are few places where there is not something to form a basis of discussion, and few where there are not organizations whose help can be secured. I see that a paper is to be read shortly by an architect at Brighton on "Brighton under the Regency." It is a fine subject, and one that might form the base from which many kindred matters might be dealt with. I once heard Mr. Caulfeild Orpen dealing with "Dublin in the Eighteenth Century" in a paper that would have pleased laymen just as much as it delighted the architects for whom it was written.

The societies allied to the R.I.B.A. might do a great deal if they agreed upon systematic action in a joint campaign for educating people in the present interest and the future development of their districts and cities. A great deal has been said about "Art in Common Things," but the subject to be put before the public is "Beauty in Common Things." There are very few places where illustrations for such a subject may not be found.

ARTHUR KEEN.

Forthcoming Exhibitions

British Empire Exhibition.

Up to October 1 guarantees, chiefly from London firms, to a total of approximately £450,000, had been secured for the British Empire Exhibition, to be held, under the patronage of the King, at Wembley Park next summer. This sum includes the Government's contribution of £100,000. Full particulars of the exhibition has been given from time to time in the JOURNAL. While the British Empire Exhibition will only be open to the public for six months, the buildings to be erected will form a permanent home of a number of important trade exhibitions, and the Park will become the principal athletic ground in the country. The Prince of Wales is President of the General Committee, and the official architects are Messrs. John W. Simpson, PP.R.I.B.A., and Maxwell Ayrton, F.R.I.B.A. At the request of His Royal Highness meetings are being called in the leading provincial centres with a view to the formation of local committees to assist in the completion of the guarantee fund.

Hygienic Exposition, Strasburg.

In connection with the centenary next year of the birth of the great French chemist, Louis Pasteur, an Interallied Hygienic Exposition, organized under the auspices of the "Institut Pasteur" of Paris, the University of Strasburg and the City of Strasburg, is to be held at Strasburg, the town in which he was professor of chemistry from 1849 to 1854. A special feature of this exposition, to be held from May to October, 1923, will be a section dealing with "Hygienic Towns." This section, which will be presided over by Vice-Mayor Keppi of Strasburg, is intended to demonstrate the latest achievements in the building of hygienic towns, especially those relating to the general planning of towns and streets, labourer's gardens, drainage, street-cleaning, removal of garbage, building of houses, arranging of flats and furniture, provision of air, heat, light, and water, and public and private bathing arrangements. Full particulars may be obtained from: "Exposition Interalliée d'Hygiène, Strasbourg 1923, 2e Section, Hygiène Urbaine, 1, Quai Lezai-Marnésia, Strasbourg." We understand that a great many firms and organizations have already decided to exhibit.

Monsieur Charles-Louis Girault

Monsieur Charles-Louis Girault, whose portrait is reproduced on this page, was recently presented with the Royal Gold Medal of the R.I.B.A. for 1920. The presentation of the Royal Medal was to have been made last year, but was deferred in consequence of the industrial crisis at the time. In June of the present year, through the assistance of the Foreign Office, the Royal Medal was dispatched to France and presented to M. Girault by Lord Hardinge, the British Ambassador.

M. Girault, who has had a long and distinguished career, was born at Cosnes (Nièvre) on December 27, 1851. In 1837 he was a pupil at the Ecole des B Arts (Atelier Daumet), and gained v prizes during his student's days, inc the Grand Prix de Rome. From 1 1884 he was a *pensionnaire* of th démie de France at Rome, and return to Paris in 1885 he was ap Auditeur du Conseil Général des ments Civils et Palais Nationau subsequently held many other imp appointments. In 1908 he was President of the Société Centra Architectes Français, in 1919 he b President of the Académie des Arts, and was also President (191 of the Fédération des Sociétés d tectes. In 1902 M. Girault was el member of the Institut de France cession to M. Ernest Coquart.

The list of architectural works ex by M. Girault both in France and B is extensive, and includes many buildings. He was the architect Palais de l'Hygiène at the Exp Universelle of 1889, the tomb of P at the Institut Pasteur (in 189 Petit Palais of the Champs (1896–1900), architect in chief Grand Palais, various private dw in Paris, and the Louis Pasteur ment, in the Avenue de Breteu latter designed in collaboration M. Falguière, the sculptor. His w Belgium include additions to the Castle at Laeken (1901–1902), the Museum at Tervueren (1903–191 important works at Brussels and During May a collection of photo illustrating M. Girault's work, w hibited in the Institute Galleries.



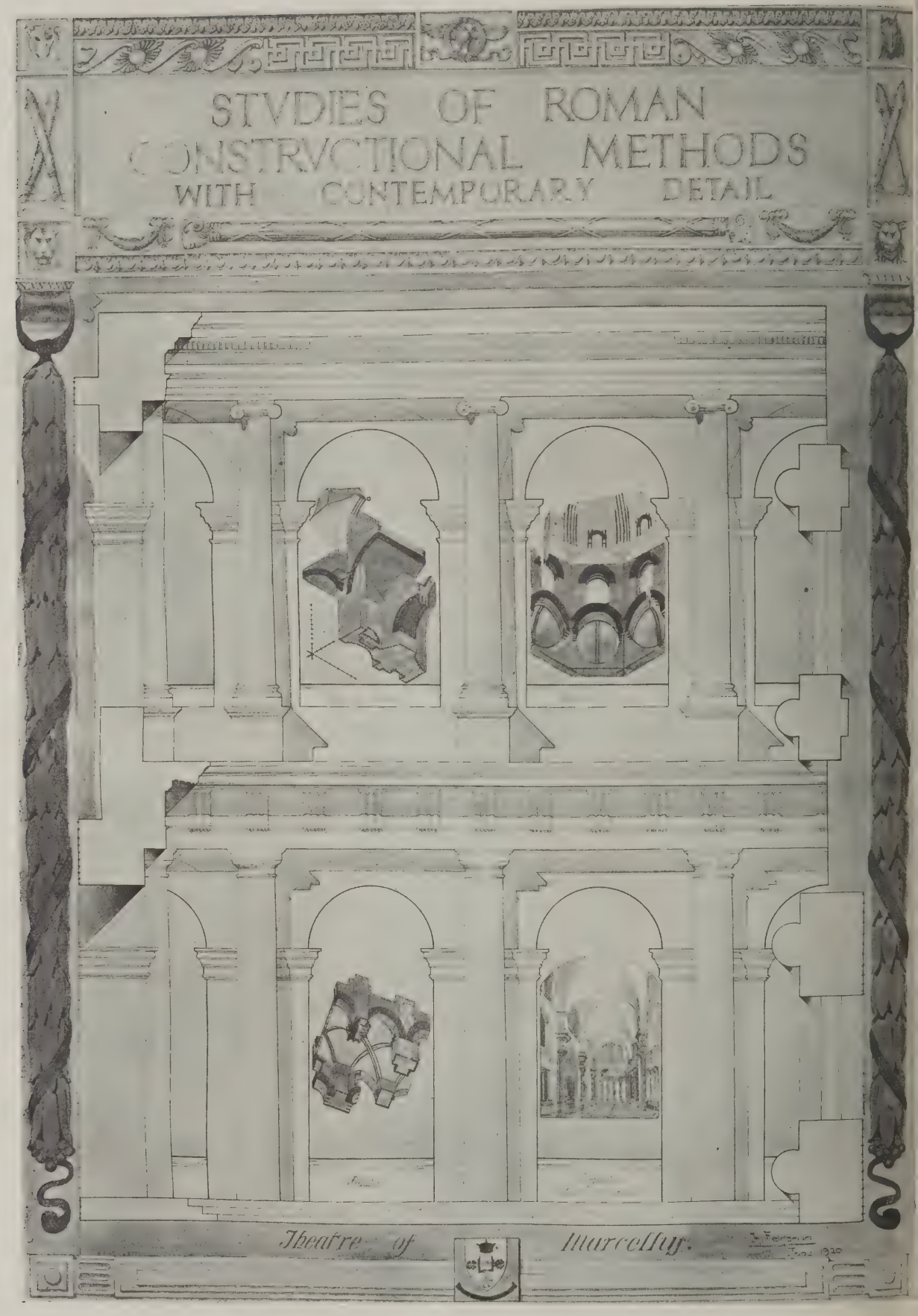
By courtesy of the R.I.B.A. Journal

MONSIEUR CHARLES-LOUIS GIRAULT, MEMBRE DE L'INSTITUT DE FRANCE, ROYAL GOLD MEDALLIST 1920.

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Architectural Designs. 17.—Work by Ex-S

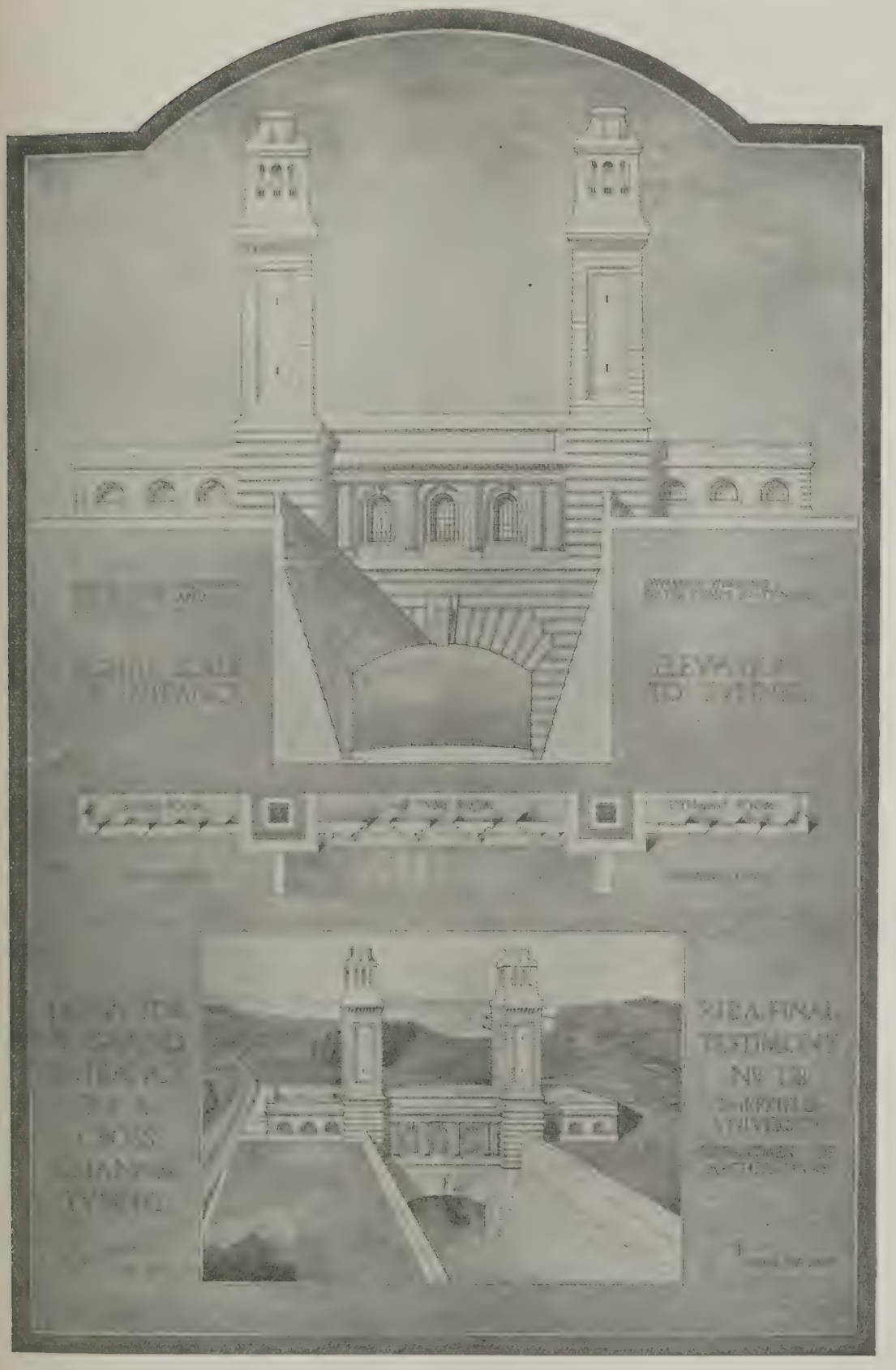
By H. Fieldsend



The above drawings are characteristic examples of work produc
which is one of the schools "recognized" by the R.I.B.A. Some

;s of the Sheffield School of Architecture

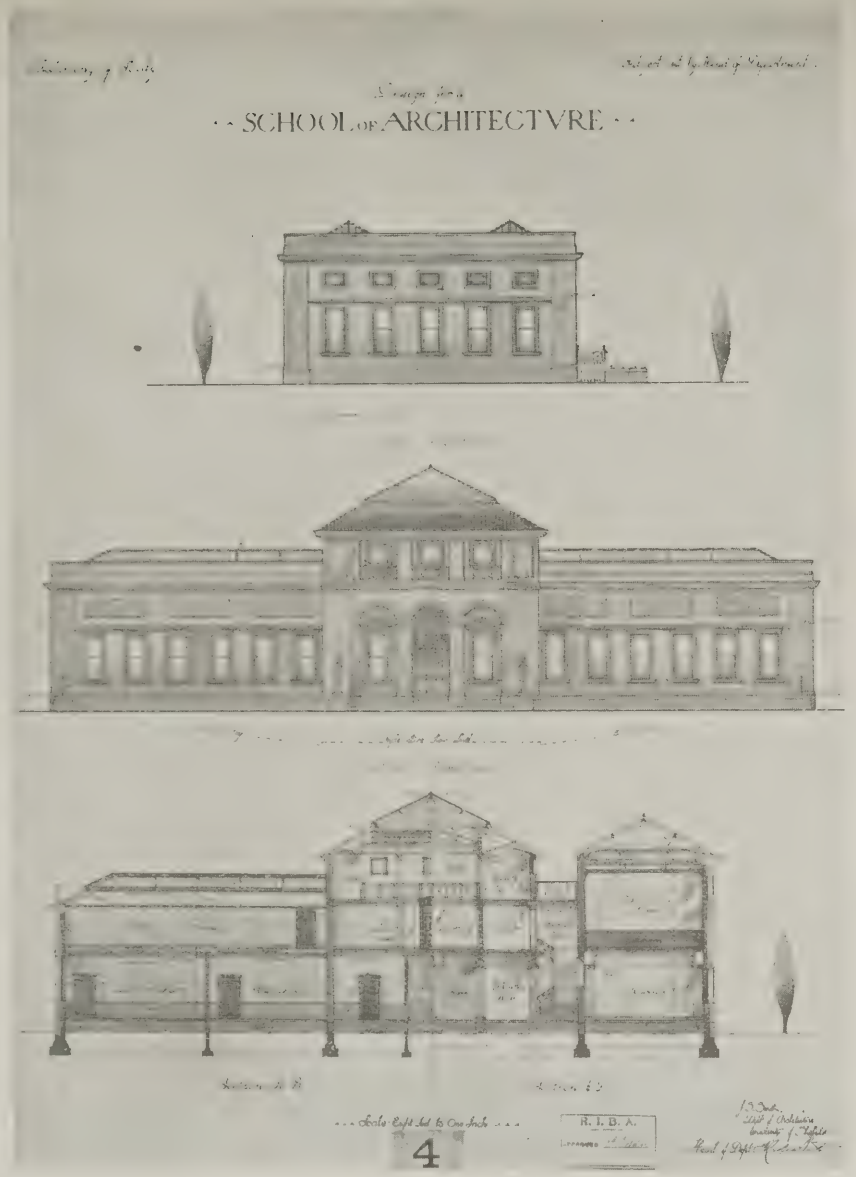
By Ernest W. Winke

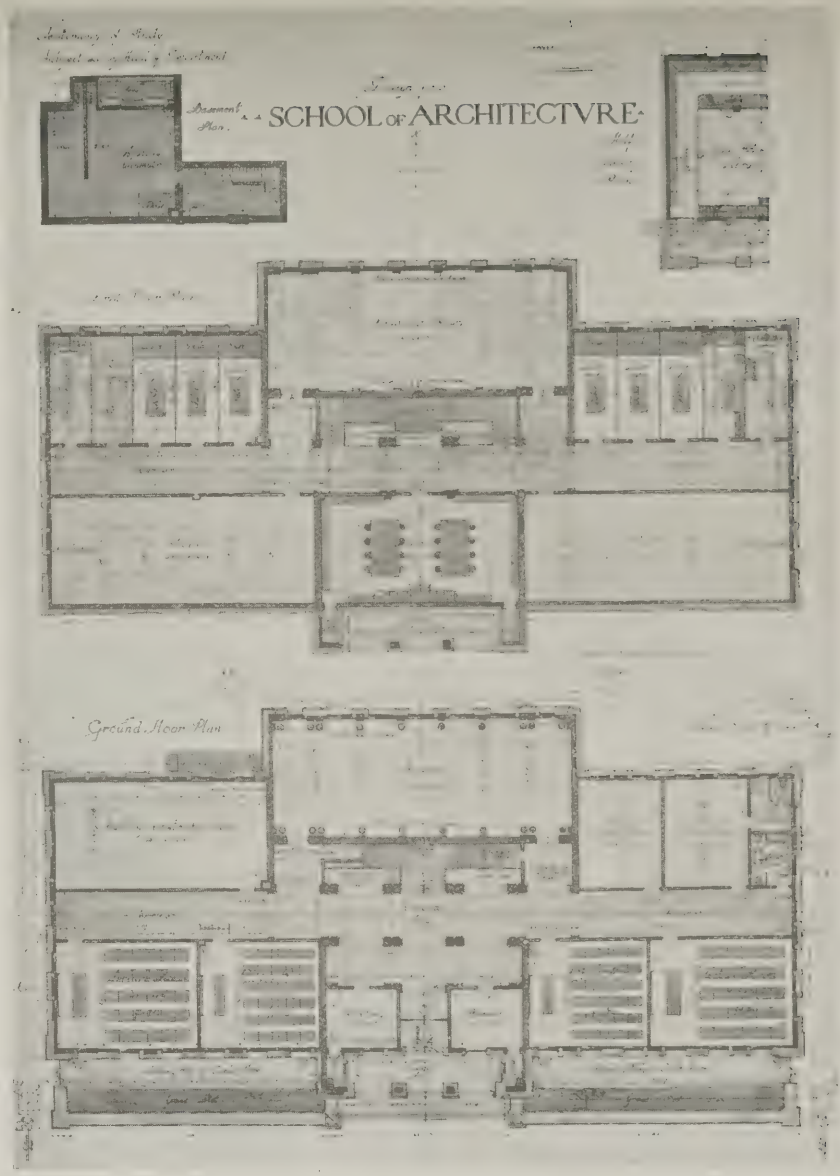


s in the Department of Architecture of Sheffield University,
instruction provided in the department is given on page 547.

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By J. S. Smith (Department of Architecture, Sheffield University)





The above design, the work of an Ex-Service student, was prepared during a short special course of intensive training in the Department of Architecture of Sheffield University. Some account of the work of this school, which is under the direction of Mr. F. Radford Smith, A.R.I.B.A., is given on page 547 of this issue.

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Law Reports

hitects' Actions for Fees

Collin v. Howes.

Oct. 17. King's Bench Division.
Before Mr. Justice Bray.

was an action by Mr. Charles Colin, of Palmers Road, Norbury, , architect and surveyor, against bert S. Howes, Providence House, gham, Norfolk. Plaintiff claimed s., balance of an account amounting 10s., for professional services ren-

The defence was that plaintiff to do the work for £10.

ntiff gave evidence that he was to value the damage done by a fire intiff's farm for the purpose of g in an insurance claim. The ar- ent, he said, was made at an inter- ith defendant in the office of his r, Mr. Raymond Burrow, of Chan- ane. On that occasion, on Mr. 's suggestion, defendant paid him account by cheque. He never to do the work for an inclusive fee He had to make a second journey farm, and following that an addi- payment of £5 was made on ac- His charges were for attendance arm, preparing skeleton drawings, off quantities of material and and preparing price schedules.

Walter Palmer, formerly a solici- erk in Mr. Burrow's employ, con- plaintiff's account of what took n Mr. Burrow's office, when £10 d on account to plaintiff.

fence, defendant and Mr. Burrow, citor, said plaintiff agreed to do k for an inclusive fee of £10, and bsequently another £5 was given because he had to pay a second the farm. These witnesses stated clerk Palmer was not present at rview.

E. Page, 11 Gray's Inn Place, Inn Road, and Mr. Crickway, bury Mansions, members of the Institute of British Architects, dence that the plaintiff's charges asonable, and that if he had according to the scale of the they would have been larger.

ordship, in his judgment, said he idea what the true facts in the re, but it was for defendant to t that the £10 and £5 were given satisfaction. His lordship could defendant had made that out, efore he must reject the idea that and £5 were paid in full satisfac- to the amount claimed by plain- s a ridiculous claim. He thought was entitled to £35 less the £15 een already paid.

ent was entered for plaintiff for costs on the county court scale.

h v. Wood and Rozelaar, Ltd.

Oct. 19. Court of Appeal.
rds Justices Bankes, Scrutton, and Atkin.

se was heard upon the appeal of tiff, Mr. C. W. Smith, of 2 Gray's re, W.C., architect, from a judg- Mr. Justice Greer, in the King's vision.

sturnal, K.C., and Mr. St. John eared in support of the appeal; J. F. P. Rawlinson, K.C., and d represented the respondents dants).

Mr. Disturnal said Mr. Justice Greer had given judgment for the defendants with costs, disallowing the plaintiff's claim, which was for architect's fees for drawing plans of a proposed building of the defendants in the Gray's Inn Road. The defendants, a firm of printers, in the autumn of 1919 were in negotiation for a site in the Gray's Inn Road with the owners, defendants being minded to build on that site a factory for printing and to accommodate certain heavy machinery and plant. Defendants instructed the plaintiff to get out the plans of that building, which he did. The reason the learned judge had decided against the plaintiff was this: Defendants had told plaintiff that they were not willing to spend more than £20,000 on the building, but the building, in point of fact, when the whole of the plans were got out, and the quantities made out by a quantity surveyor (for which the plaintiff took no responsibility), and the plans were submitted to builders and contractors in competition, the lowest tender came to £32,000, and in those circumstances the learned judge said the plaintiff was not entitled to recover, because, as he (the judge) put it, the plaintiff was only instructed to make plans for a £20,000 building, whereas the plans he got out were for a building which could only be erected for £32,000. It was admitted that the plans which the plaintiff got out were in pursuance of the defendants' instructions, and that they were for a building exactly of the character the defendants described, and it was not suggested, in making the plans, that anything was done which would make the building more expensive than was necessary.

Mr. Justice Greer had said that it was almost common ground between the parties that, as matters turned out, a building of that character could not possibly be erected upon that area for a sum of £20,000, and he also held that the plaintiff had told the defendants that it was unlikely that a building of that character on that site could be erected for £20,000. Nevertheless the judge held that the plaintiff was not entitled to recover.

He (counsel) contended that in these circumstances the plaintiff was entitled to recover, unless it could be shown there was something in the nature of a warranty or undertaking by the plaintiff in the contract that the building for which he had prepared the plans could be erected for that sum of money. The question depended upon the exact meaning of the contract made between the parties. In the present case it was a verbal contract, and there was a good deal of conflicting evidence on both sides with respect to it. Mr. Justice Greer had heard and decided another action, which was by a quantity surveyor employed by the plaintiff on behalf of the defendants to get out the quantities in accordance with the plans. Defendants defended that action, but the learned judge gave judgment for the plaintiff in that action upon the ground that Mr. Smith, the plaintiff in the present action, was authorized to give the instruction to the quantity surveyor on behalf of the defendants. The learned counsel contended that the judge had misdirected himself, and that upon his findings of fact as they stood and the evidence the plaintiff was entitled to judgment. What the plaintiff was instructed to do was to prepare plans of a particular kind, and to keep down the expense as much as possible. He submitted that for the defendants to succeed they must show that they made it a special condition with the plaintiff that he was not to be paid if the building to be erected in accordance with the plans exceeded a certain amount.

Counsel having referred to the evidence in the case,

Their lordships, without calling upon counsel for the respondents, dismissed the appeal with costs, holding that they could not interfere with the findings of fact of the learned judge and the conclusions he had come to.

Builders' Heavy Claim

Saunders and Forest, Ltd., v. Amalgamated Glass Bottle Co.

Oct. 19. Official Referees Court.
Before Mr. Pollock.

The plaintiffs in this action, who are builders, of Thames Works, Hertford Road, Barking, sought to recover from the defendants £3,182 14s. 8d., balance of charges for work done for the defendants in connection with the construction of a factory for the defendants, whose registered offices are at 7 India Street, Crutched Friars, E.C.

Mr. Colam, K.C., and Mr. P. R. Simner appeared for the plaintiffs, and Mr. E. A. Harvey, K.C., with Mr. G. W. H. Jones, for the defendants.

From Mr. Colam's opening statement it appeared that after action was brought under Order 14 the Master ordered payment of a further sum of £1,000. This was paid, and the order provided that a further sum of £800 should be paid in, upon which leave to defend was given. That £800 had been paid in with a denial of liability. There was about £2,000 in dispute now. About March, 1920, the defendants were minded to put up a factory, and applied to the plaintiffs for an estimate. It was to be a steel frame and concrete building, and plaintiffs at the time quoted for £4,700 net cash. That was only approximate, and on April 28 they sent in an estimate undertaking to erect the building as shown on the plans on certain conditions. The main building was to be erected for £5,650, and other buildings connected with it, such as tool sheds, lavatories, offices, etc., for £832, £682, £506, and £902. The time for the completion of the main building ready for working was fixed at 15 weeks from the date of acceptance of the contract, subject to the usual conditions. The figures given were to be subject to increase if wages and other charges were advanced before the order was executed. A dispute had arisen upon that clause of the contract. The time indicated for delivery was, said counsel, given without guarantee, but plaintiffs said that they would use their best endeavours to get the work done within the specified time, but they accepted no liability for failure to do so.

Evidence was given in support of the plaintiff's case, in the course of which it was said that some difficulty had been experienced in obtaining labour and material during the time the contract was being carried out. As to the charges made by the plaintiffs for extra work and the additions made to the contract price, witnesses were called to prove that they were fair and reasonable under the circumstances.

At the conclusion of the evidence the parties agreed to a settlement of the action on terms.

The Official Referee, in accordance with those terms, entered judgment for the plaintiffs for £1,285 8s. 4d. in addition to the sum of £897 6s. 2d. paid into court. He also entered judgment for the plaintiffs on the counter-claim with costs.

Builders' Action

Stevens and Sons v. Oliver Woodhead.

Oct. 20. Official Referees Court.
Before Mr. G. A. Scott.

The plaintiffs in this case, of 14 Muswell Hill Road, builders, claimed £594 balance of account alleged to be due from the defendant, of 88 Aberdeen Road, Highbury, for work done and materials supplied in connection with repairs and alterations of two houses at Muswell Hill.

Mr. Maddocks, K.C., was for plaintiffs, and Mr. P. B. Morle for the defendant.

The defendant, it appeared from counsel's statement, acquired the two houses, which had been unoccupied for eighteen months, and in January last approached Mr. Stevens with a view to having them repaired, and in consequence Mr. Stevens visited the premises and took notes of defendant's requirements. Defendant told plaintiffs he wanted the premises for the manufacture of rainproof wear. Plaintiff noticed that the place was very damp, and subsequently found that on a flat roof over a portion of the premises there were four or five inches of water, which materially added to the cost of the work, because at the time plaintiff estimated for the work he did not know that such a state of things existed. Plaintiff, after an interview with defendant, said the local surveyor and they together inspected the cellars. The surveyor said that a great deal would have to be done, and he served a sanitary notice. On January 23rd the plaintiffs made out their estimates, eight in number, and sent them to the defendant, who accepted them, plus extras. The total amount of the estimates was £644. As the work proceeded orders were given for extras from time to time. The work was finished in June, and when the bill was delivered in November defendant set up the defence that he was taking the premises for a company about to be formed, and the agreement, he alleged, was that the plaintiffs should look to the company for payment. Plaintiffs said that that had never been previously mentioned. Moreover, said counsel, the cheques given in payment as the work progressed, with the exception of the last two, had been the defendant's own cheques, and the receipts had all been signed by the defendant.

The Referee said that the company was not formed at the time the contract was made, and therefore it could not be held to be liable to the plaintiff.

Evidence was given as to the value of the work done and orders given by the defendant from time to time for extra work outside the estimate.

The Referee suggested that the best way to arrive at a conclusion as to what was due to the plaintiff would be to have the whole of the work measured up and deduct the contract price from the total.

Mr. Maddocks said that he would be content to leave it to a measurement. Their margin of profit had been so slight on the extras that he had no hesitation in accepting the suggestion.

The Referee said it seemed to him that the whole of the work should be measured up and a fair price paid for the whole.

Mr. Maddocks said that the plaintiff had no desire to have a penny more than he was entitled to.

Mr. Morle did not, however, accept the offer, and expressed a desire to put defendant in the box to give evidence as to the items charged, and extras which he disputed.

The Referee, after further evidence had been given, said he was satisfied that the charges were fair and reasonable, and gave judgment for the plaintiffs for £494 7s., with costs.

Scientific and Industrial Research

Valuable information with regard to the activities of the industrial research associations and the laborious investigations carried out for National purposes is given in the Report, just issued, of the Committee of the Privy Council for Scientific and Industrial Research. During the past year the most important development has been connected with the work of the new co-ordinating research boards. These have been established as the result of a Government decision to co-ordinate, in the interests of economy, researches which are of civilian interest as well as of importance to the fighting services, and to direct the expenditure of funds provided in the estimates of the department for the development of research for Government purposes. Naturally, up to the present, the work of the boards has been that of preparation rather than achievement, but the results obtained so far have been decidedly encouraging.

Turning to the researches conducted by the different services we find remarkably little overlapping; where the same problem is apparently being attacked at different establishments it is found that solutions are sought from entirely varied points of view.

The work of the Building (Materials and Construction) Research Board has been hindered owing to difficulty in finding suitable accommodation for the experimental station. A site was ultimately obtained at East Acton through the kindness of the Acton Urban District Council, and the necessary buildings were erected, but these were not completed until July of this year.

The station consists of small engineering and chemical laboratories, workshops, offices, and ground space for full-size construction. It is equipped with the plant and setting-out instruments of a builder, a few small metal-working tools, mixing and grinding machines, a Brayshawe furnace with blower, a sixty-ton Buckton testing machine (on loan), special microscope, balances, pyrometer, and various other apparatus and plant. A 20-kilowatt lighting and power set has been installed. Gas and water are l from the public mains. Pendin pletion of the station, two r workers have been accommodated L.C.C. School of Building, Brixton

The erection of the experiment tages at Amesbury was completed the year. The result of the expe so far, has been an actual compar first cost and suitability of old a building methods and materials, a vision for watching their behavio the expense of maintenance ov desired period. "The only gener clusion it is safe to draw from the ment confirms that of the past experience over the kingdom, th stantial, economical progress is sought neither in blind revers ancient practice nor in the hasty a of revolutionary methods, but by scientific development of the norm

In the cement research only preli work has so far been possible, but bet gress should be made when the r perimental station is in full workin

The best methods of preserving building stones are being inves with the help of Dr. Desch. W been done for the authorities o minster Abbey and the Imperi Graves Commission on this subjec hoped that some useful resul shortly be available.

In co-operation with the Fuel R Board, the important subject economical use of fuel in brick-b with special reference to the gas-f kilns, is about to be investigated country and abroad.

Other subjects under consid are: heat transmission through materials; sound-proofness of ma systems of building; jointless asbestos-cement materials; the certain new materials. At the request, conveyed through the B Trade, the British Engineering St Association are considering stand sand-lime brick and iron Portland

The report may be obtained, net, at H.M. Stationery Office, House, Kingsway, W.C.2.

Beverley War Mem

The war memorial erected in toric minster town of Beverley men who fell in the Great War was recently unveiled, is constru Portland stone, and has a total h 29 ft. It is in three stories, the one, standing on three octagonal blue Idle stone, being a square b scrolls at the corners. The nex also octagonal, has upon it four one at each corner, symbolically senting the Navy, Army, Air Fo the Nursing Service, each of whi tended to carry a symbol in cas the Navy a boat, the Army a t Air Service an aeroplane, and the Service the staff of Æsculapius. figures are approximately 8 ft. a ground. On the face of the pr are stone cartouches, the front on the arms of the borough of B Above this is a pyramid 14 ft. high on its front face a carved stone sacrifice. The sculptor was Mr. Hill, A.R.C.A., Beverley, and th was carved and letterings done b Whitehead, Hull. The archit Mr. R. H. Whiteing, Beverley.

Book Notice

Old London Illustrated.

W. Brewer died in 1903, but for a r of a century before his death he een a distinguished contributor to Builder," the proprietors of which have now collected his drawings liæval London and published them, escriptive letterpress by Mr. H. A. nder the title "Old London Illus- " They deserve to be rescued he oblivion of back numbers if only e they are obviously the produc- f a man who regarded and enjoyed ual creation of a picture as an end f, quite apart from the advantages ained from it—a peculiarity which, rare, is the condition of good anship and good art.

ver, indeed, was mediæval at heart spirit. He could not, it is true, ate to the grotesque and fanciful the middle ages; there is some- old and topographical in his work reminds one more of the Gothic l than of the fifteenth century. othic appealed probably to the is and romantic side of his nature; erhaps, as the Foreword to this re suggests, the fact that he was ut member of the Roman Catholic nion may explain his partiality diæval buildings—especially those ted with the religious orders. es and monastic institutions appear t of his drawings, many of them ns of his own imagination; for, exhausted available means of ation, he would construct scenes own account with an eye chiefly r picturesque effect. This prac- his reveals a native vein of origin- at distinguishes him from the mere pher, and is traceable probably to antic nature, which is manifested rly in his treatment of water and on, in his feelings for the flatness earth's surface, for the flatness and wide-spreading of towns, and for the triumph of bridges.

His drawing of Old London Bridge reveals these qualities very distinctly. In spacing and texture the water is handled with vision and boldness. Though suggested by the plain surface of the paper (we speak of the original), it possesses a brilliant quality which is highly imaginative. The bridge itself is really beautifully rendered; the detail is not only minute but exact, which, however, is not always the case in this artist's work; and the buildings and the arches supporting them achieve that adventurous gaiety associated with the inconceivably daring human conception of the power to "throw a bridge across a river." Indeed, the spirit and execution of the drawing is in all respects excellent; it seems to us easily the best example in the book.

Old London Bridge was begun in 1176 and finished 33 years later, but not until the close of the fourteenth century were houses erected upon it. The stone piers were supported by huge wooden platforms called sterlings or starlings (or even stirlings), which were in their turn propped upon wooden piles driven into the bed of the river. These stirlings were the cause of a truly romantic institution, for they so obstructed the water-way that in winter blocks of ice got wedged between the openings, with the result that the river above bridge froze over. On such occasions the jolly citizens of London Town transformed their Thames into an anticipation of the Bank Holiday revels on Hampstead Heath, with certain robustious addenda; for they erected bear and bull-baiting rings, roasted whole oxen upon the ice, and enjoyed somewhat more than "all the fun of the fair." In the London Museum there is a delightful model of one of these Frost Fairs (as they were called) in progress; and comparison between the pleasures of our Age of Liberty and those enjoyed under the tyranny of the feudal system encourages one to trifle with the paradox that Liberty is after all the greatest of tyrannies. Only the bond are free.

In conclusion, we would pay tribute to Mr. Cox's graceful descriptions and explanations. He contrives to convey much useful information in the least pompous of manners. H. DE C.

"Old London Illustrated." A series of drawings by W. H. Brewer, with descriptive notes by H. A. Cox, F.C.A. Published by "The Builder," Ltd., 4 Catherine Street, Aldwych, W.C. 2. Price 3s. 6d.

The late Mr. R. St. A. Roumieu, A.R.I.B.A.

It is with the deepest regret that we record the death of Mr. Reginald St. Aubyn Roumieu, A.R.I.B.A. Born in 1854 Mr. Roumieu was a Past Grand Superintendent of Works in Freemasonry and a Knight of Grace of the Order of St. John of Jerusalem. The last distinction was conferred upon him by the sanction of the King in recognition of his many gifts and services to philanthropic and charitable objects.

In the course of an appreciation in the current issue of the Journal of the Royal Institute of British Architects, Mr. John Penfold, A.R.I.B.A., says that Mr. Roumieu was the great-grandson of Abraham Roumieu, who was in practice as an architect in London in 1769, and son of the late Robert Lewis Roumieu, F.R.I.B.A., who was articled to Benjamin Wyatt in 1831, and had a very considerable practice. On the death of his father, Mr. Roumieu at first continued the practice alone, afterwards taking into partnership the late T. Kesteven Hill, after whose death he was joined by the late Alfred Aitchison, brother of Professor Aitchison, R.A. The Roumieus, father and son, occupied the same offices, 10 Lancaster Place, Strand, for over eighty years

Although Mr. Roumieu, with his partners, carried out a large number of buildings, they were not perhaps of sufficient importance to interest others. I should,



OLD LONDON BRIDGE

(*From a Drawing by the late W. H. Brewer.*)

however, like to mention one interesting fact: that both father and son each built a hospital as honorary architect, the former, "The French Hospital" at Hackney, a hospice for the aged descendants of poor French Protestants, and the latter, "The Grosvenor Hospital," Vincent Square, Westminster, a modern hospital for women.

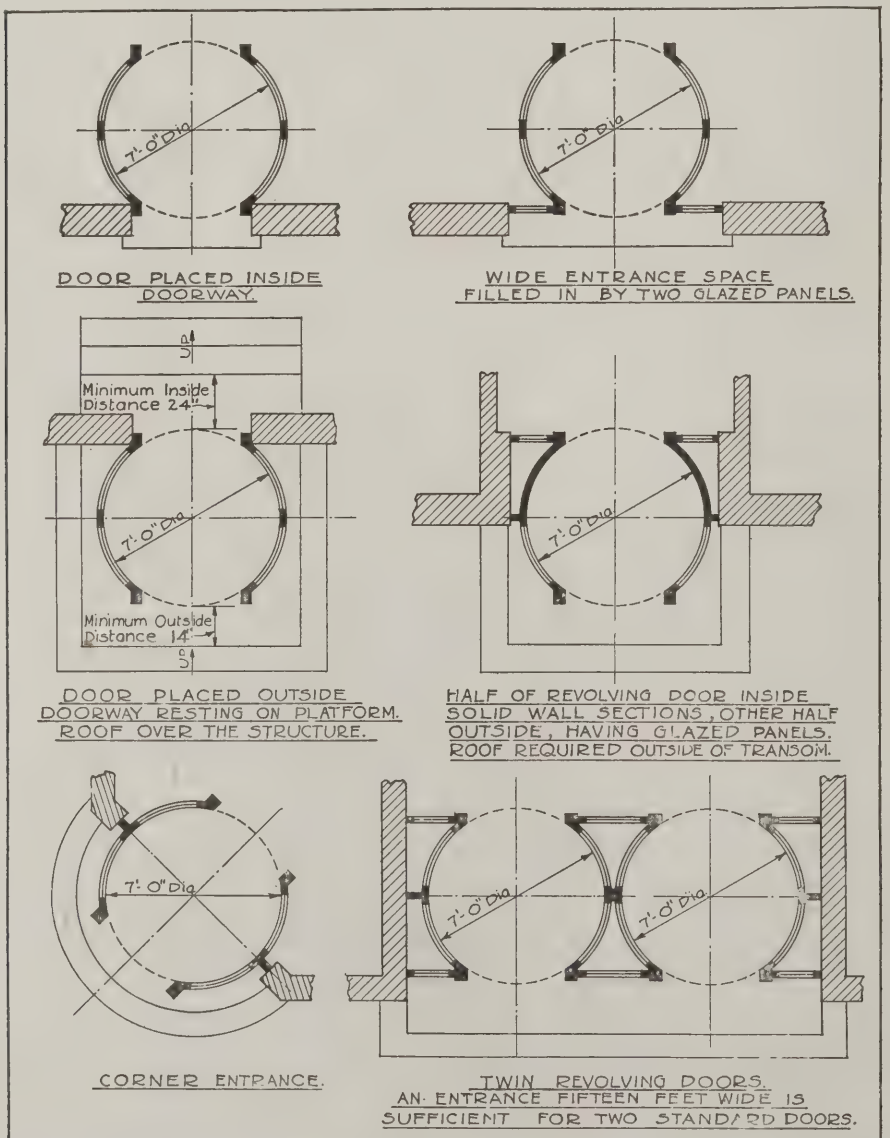
Mr. Roumieu also had a considerable practice as a London surveyor, and was on more than one occasion appointed as official umpire by the Courts. He was descended from the old Huguenot family of Romieu, who fled from France during the massacres of the Huguenots and settled in this country.

About the year 1885 Mr. Roumieu assisted in forming a society which is now known as the Huguenot Society of London, of which he became in late years the president. His interest in charities was great, and his subscription-list a long one. For a number of years he served on the Council of the Architects' Benevolent Society, and, later, as its Vice-President. He was also an active member of the Committees of the National Benevolent Institution, the Rebecca Hussey Charity, and the Westminster French Protestant School. He was one of the oldest Directors of the French Hospital, to which he acted as honorary architect for many years, and was a Governor of the Foundling Hospital.

Sir Banister Fletcher on Mediæval Architecture

Twenty-four weekly lectures and classes on mediæval architecture (comprising the Romanesque and Gothic architecture of England, France, Germany, Belgium, Holland, Italy, and Spain) are being given by Sir Banister Fletcher, F.R.I.B.A., at the L.C.C. Central School of Arts and Crafts, Southampton Row, W.C.1. The outline syllabus of the remainder of the course, which commenced on September 28, is as follows:—

	Lecture.	Italian Mediæval Architecture:
Nov. 2.	VI.	3. The Gothic Period in North Italy.
„ 9.	VII.	4. The Gothic Period in Central and South Italy.
„ 16.	VIII.	5. Bridges, Castles, Palaces.
„ 23.	IX.	French Mediæval Architecture: 1. The Romanesque Period.
„ 30.	X.	2. The Gothic Period: The Cathedrals.
Dec. 7.	XI.	3. The Gothic Period: Reims Cathedral.
„ 14.	XII.	4. Fortified Towns, Castles, Hotels-de-Ville.
Jan. 11.	XIII.	English Mediæval Architecture: 1. The Pre-Mediæval Periods.
„ 18.	XIV.	2. The Mediæval Period: Plans, Vaults. Buttresses.
„ 25.	XV.	3. Interiors, Exteriors, Openings.
Feb. 1.	XVI.	4. Piers, Towers, Spires, Roofs.
„ 8.	XVII.	5. Parapets, Ornament, Fittings.
„ 15.	XVIII.	6. Monasteries, Cathedrals, Churches.
„ 22.	XIX.	7. Westminster Abbey.
Mar. 1.	XX.	8. The Tower of London.
„ 8.	XXI	9. The English Home.
„ 15.	XXII.	Spanish Mediæval Architecture.
„ 22.	XXIII.	German Mediæval Architecture.
„ 29.	XXIV.	Belgian and Dutch Mediæval Architecture.



VARIOUS ARRANGEMENTS FOR REVOLVING-DOOR INSTALLATIONS.

The lectures will be fully illustrate special lantern slides, and by pl graphs, diagrams, and models, which be on view half an hour before the tures begin. This course may be t as the first or second year's work course of study for the University loma in the History of Art. The fe the session of twenty-four lecture 17s. 6d., teachers 10s., and for the of twelve lectures 10s., teachers 7s. Admission to single lectures is 1s. 6d

Arrangements for Revolving Doors

A revolving door may be placed e within or without the entrance door or centred in the opening. Variou rangements are shown in the accomp ing illustration. In most cases it wi found that the ground floor is sli above the street level, necessitating use of steps. The first riser should n less than 14 in. distant from the pa the revolving wings; 18 in. is prefer When steps are again encountered, entering the building, the first riser sh be kept at least 24 in. from the door.

It must be remembered that where revolving door projects outside the way it is necessary to provide a wea proof roof, which, of course, increase cost, but not seriously.

Where space permits it is always visable to place an auxiliary swi door in close proximity to the revo door. This need not be more than wide. For department stores and classes of buildings where it is pos that children unaccompanied by ad or persons unfamiliar with the oper of revolving doors may enter, auxi swinging doors, adjacent to the revo door, should always be provided.

Dr. Berlage to Lecture "Amsterdam"

Dr. H. P. Berlage, who is probabl most distinguished living Dutch archi is to deliver a lecture, under the aus of the Garden Cities and Town Plan Association on November 10 at K College, on "Amsterdam—Past and sent." Dr. Berlage was one of the in Holland to take part in the mo revival of town-planning. Born at sterdam in 1856, he studied architec in Zurich, and travelled in France Germany before settling down to his fession in Holland. Later he travelled lectured in America. He was entr with the preparation of the plans fo development of Amsterdam and Hague, and both cities are now being veloped in accordance with his p More recently the City of Utrecht in him to prepare a development plan, this has just been published. Among many buildings for which he has responsible are the Amsterdam Exch several large office buildings, a ce meeting hall for workers in the diam industry, and the London office W. Müller & Co. Dr. Berlage is r nized in Holland as a creative artist his own initiative he has prepared de for a Palace of Peace, and for a sp theatre for the works of Wagner.

een student of sociology and philo- and has written quite a number of on these subjects. Sir Walter y, K.C.M.G., will occupy the ind Mr. Paul Waterhouse, M.A., .A., will also be present. The will be given in English. Tickets obtained from the Secretary, Cities and Town Planning Asso- 3 Gray's Inn Place, Gray's Inn, , W.C.1.

ork of the Sheffield iool of Architecture

g to the war and the resignation former lecturer, the Council of d University twelve months ago to close its Department of Archi- . Under pressure of the profes- odies, and at the entreaty of the s concerned, however, the matter onsidered, and some time ago the was reversed. That the ultimate was a wise one is shown by t that the number of students in partment has since that time risen ven to twenty-one.

entirely new syllabus has been d, and is calculated to give the best possible in a five years' course. these circumstances, of course, all s taking the Degree course are their first year.

drawings illustrated elsewhere in ue are the work of ex-service s undergoing a short special of intensive training. The pro- of this special course has been an justified by the industry and asm already displayed by these ice students. The rate of progress will be realized when it is said ne months ago none of these men ow to cast a shadow nor how to ash a drawing. Whilst the num- tudents is still small, it is growing, e Council, having made the De- nt permanent, is determined to o effort or expense to make it one eading schools in the country.

Department is one of the "recog- chools," students taking the Uni- Certificate at the end of the third eing exempt from the R.I.B.A. diate Examination, and those either the Degree or Diploma xempted from the R.I.B.A. Final ation, except for one short paper essional practice. Courses of in- n are provided for students (*a*) architecture as part of the s for the ordinary Degree; (*b*) the in the Honours School of Archi- ; (*c*) the Certificate and Diploma University; (*d*) preparation for the ations of the R.I.B.A. and Society hitects; (*e*) special courses for s who may be able to attend in nings only.

system of teaching design by the periodically of subjects totally d one to another, with criticism only guide to improvement, has andoned, and a new system having instruction as its basis has been . This system has proved re- ly successful. All drawings pre- n the Department are considered he property of the Department, dents join on this understanding. ctice, however, the Department only retains a few of the best drawings for exhibition purposes, and drawings so honoured are lent to the student when he requires them.

The Department is fully equipped with an excellent architectural library, a comprehensive collection of lantern slides and working models of constructional features, and offers a thoroughly academic and practical training to those intending to enter the architectural profession. The University possesses a large sports ground, and there are clubs specializing in all the usual outdoor games, and the University's Literary and Debating Societies cater for all interests.

The following scholarships are tenable in the Department :—

Firth Scholarship, £30 a year, tenable for three years.

Corporation Scholarship, £30 a year, tenable for three years.

Sheffield Town Trustees' Scholarships, four of the value of £50 a year.

Edgar Allen Scholarships, four of the value of £125 a year, tenable for three years.

"(*a*) Two Scholarships open to men and women who will not have completed their twentieth year at the beginning of the University Session in which they enter the University.

"(*b*) Two Scholarships restricted to the 'sons of workmen earning daily or weekly wages and foremen of workmen and managers.'"

The President and Council of the Sheffield and South Yorkshire Society of Architects offer prizes to the value of £10 open only to students in this Department.

With the reorganization of the Department the University placed at its head Mr. F. Radford Smith, A.R.I.B.A., who before the war held a similar post at the Newport Technical Institute, where the success of his students was conspicuous. The assistant lecturer is Mr. H. B. Leighton, A.R.I.B.A., the honorary lecturers for evening courses being as follows: English Mediæval Architecture, Messrs. C. F. Innocent, A.R.I.B.A., and J. R. Wigfull, A.R.I.B.A.; Italian Architecture, Mr. H. L. Paterson, A.R.I.B.A.

Liverpool University

Department of Civic Design.

The Department of Civic Design of the University of Liverpool have arranged a course of ten lectures on "The Law of Housing and Town Planning." Besides the actual examination of the Housing and Town Planning Acts a general introduction will be given to the law as affecting town planning, together with a full description of housing legislation. A feature of the course will be the modifications of the housing and town-planning law produced by the Acts of 1919 and 1921, and the Town Planning Regulations 1921. The lecturer is Mr. J. J. Clarke, M.A., lecturer on Local Government at the Liverpool School of Commerce. The course will be given in two parts. The Autumn Term (Law relating to Housing) begins on November 10, and the Lent Term (Law relating to Town Planning) on January 12. The first lecture will be at 6.30 p.m. The fee for the course is £1 8s., including registration fee.

Latest List of New Inventions

Latest Patent Applications.

26798.—Akt-Ges. R. P. Waagner-L. and J. Biro and A. Kurz.—Floor construction. October 10.

26941.—Dampney, G. F.—Concrete-slab building. October 11.

26804.—Sutcliffe, Speakman & Co., Ltd. —Process for production of bricks, etc. October 10.

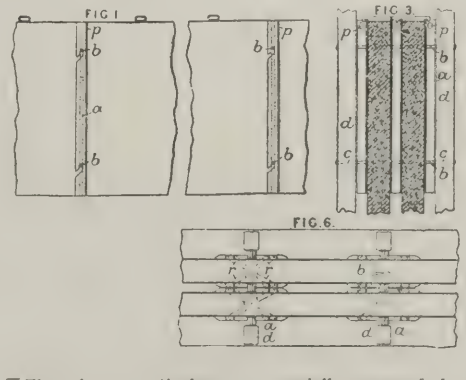
Specifications Published.

169762.—Wilson, R.—Building of concrete structures.

169782.—Buchele, A.—Hollow walling.

Abstract Published.

168258.—Moulding walls in situ.—Shingleton, L., 66 Comeragh Road, Barons Court, London.—Walls are erected course upon course by the use of metal shuttering and supports. The supports *a* are of channel-iron or other section, and are notched at intervals to correspond with the vertical disposition of the wall-ties *b* by which they are adapted to be engaged and supported, and the metal shuttering is made in sections to fit between the wall-ties disposed horizontally and has inturned upper edges to rest on the supports. The outer shuttering supports *a* are supported on bolts *c* carried by vertical uprights *d*. The shutters may be plain sheets with angle-irons on their upper edges and pivoted catches *r* to engage the supports, and in this case the catches may be turned to rest on the top of the cast concrete, while the supports are disengaged from the ties or bolts and raised to a higher level and re-engaged with the higher ties or bolts in the concrete; the shutters are then raised to rest on the the supports. Recessed distance-pieces *m* are used to separate the top ends of the shutters and supports while the concrete is being poured. Finger-holes *p* are provided in the top ends of the upright to enable them to be easily handled.



The above particulars are specially prepared by Messrs. Rayner & Co., Registered Patent Agents, of 5 Chancery Lane, London, from whom readers of this Journal may obtain all information free relating to patents, trade-marks, and designs. Messrs. Rayner & Co. will obtain printed copies of the published specifications and forward on post free for the official price of 1/- each.

The Week's News

Southend Improvement Scheme.

Plans have been prepared for a winter garden, near the pier entrance, to cost £75,000.

Grimsby Garden City Scheme.

Grimsby T.C. have decided to erect fifty new houses in connection with their garden city scheme.

Mansion House Repairs.

Repairs and renovations are to be carried out at the Mansion House, London, at a cost of £1,485.

New Swimming Bath for Hammersmith.

It is proposed to construct an open-air swimming bath on a site on the northern housing estate of the Hammersmith Corporation.

Proposed New Richmond Bridge.

A proposal to build a new bridge across the Thames at Richmond, 300 yds. below the present bridge, is being considered by the Middlesex County Council.

New Gasholder Tank for Dundee.

A reinforced concrete gasholder tank, now being erected for the Dundee Corporation, is believed to be the largest of its type in the United Kingdom. It is over 170 ft. in diameter, and 35 ft. deep

New Roads for Southwark.

The Borough of Southwark has entered upon a new programme entailing the construction of twenty concrete roads, in addition to the thirty or forty already laid.

Ramsgate East Cliff Extension.

Dame Janet Stancomb Wills has announced her intention of defraying the cost of beautifying the East Cliff extension to provide work for the unemployed at a cost of £15,000.

A Correction.

The joint architects for the Blackburn New Public Halls are Messrs. Briggs, Wolstenholme, and Thornely, and Stones, Stones, and Atkinson; not Messrs. Briggs and Thornely alone, as stated in our last issue.

Proposed New Promenade at Tynemouth.

A plan embodying various proposals for improving the sea front at Tynemouth has been prepared. The chief feature of the new project is the construction of a low-level promenade, extending from the northern end of the long sands along the whole sea front southwards to King Edward's Bay.

Prince of Wales and the R.I.B.A.

The diploma of Honorary Fellowship of the R.I.B.A. has just been presented to His Royal Highness the Prince of Wales at St. James's Palace. The document, to which is attached the seal of the Royal Institute, is very beautifully engrossed on parchment by Mr. Grailly Hewitt.

Nicholas Hawksmoor.

The work of reparation, undertaken by the Art Standing Committee of the R.I.B.A. in connection with the tomb of Nicholas Hawksmoor, in the churchyard of St. Botolph's, at Shenley (Herts), is now completed. A framed record of Hawksmoor's life and work has been hung in a suitable position in the church.

White City to Reopen.

The White City at Shepherd's Bush is to be re-opened at the earliest possible date. It is proposed to provide entertainment on similar lines to those which prevailed before the war. At present 500,000 sq. ft. of the exhibit buildings are ready for use, and the large restaurants have been completely re-equipped and redecorated. Plans have also been prepared for improving the Stadium.

A Gift to the National Gallery.

One of the most valuable and delightful contributions ever made to the French School has been placed in Room XXI of the National Gallery. It is a pastel by that rare master, J. B. Perronneau, representing a little girl with a cat, signed and dated 1743. It was formerly in the collection of Lady Dorothy Nevill, and has now been presented to the Nation by Sir Joseph Duveen, Bart.

Work for Unemployed.

Relief schemes involving the spending of nearly £3,000,000 have been discussed by the London County Council, and their acceptance was practically agreed to. The works, on which large numbers of unemployed men will be absorbed, include two new roads in Essex and Kent, and sewerage works in the Wandle Valley, and at Charlton and Hammersmith.

Public Works, Roads, and Transport Congress.

The Public Works Congress, of which Mr. Paul Waterhouse, P.R.I.B.A., is a Vice-President, will be held at the Royal Agricultural Hall from November 17 to 18. It has been convened for the purpose of discussing the most efficient and economical methods of carrying out all forms of municipal enterprise, such as housing, road construction, and maintenance, mechanical traction, street lighting, land settlement, water supply, etc.

London University Site.

The L.C.C. desires that the rival claims of the Holland Park estate be fully explored before anything more is done on the Bloomsbury project. The advocates of the Holland Park estate make the points that it is several times bigger than the Bloomsbury site, has greater possibilities of subsequent expansion, has natural amenities which Bloomsbury lacks, is cheaper, and though not so central is easily accessible. Building has started on the Bloomsbury site.

New Tea Pavilion at the Zoo.

The Council of the Zoological Society have accepted a tender for the construction of a tea pavilion at the Gardens. It is to be placed in the South Garden facing the central line of the elephant walk. There is to be a half basement with storage accommodation sufficient for the needs of the whole refreshment department, a ground-floor hall for the public with a large raised terrace in front, and a first floor for large parties, with a special tea-room and balcony for Fellows.

Tenders for Public Works in Mor

H.M. Agent and Consul-General a gier reports that the Casablanca Ch of Commerce has drawn attention practice of certain contractors of taking work which they were incap completing, with the result that left to the State to finish the work structions have been given that, in the guarantee exacted should be i portion to the importance of the w be executed, and that a stricter exa tion of the certificates presented contractors should take place.

Fire at "Pudlo" Stores.

At King's Lynn fire has comp destroyed one of the stores of belonging to Messrs. Kerner-Gree & Co., Ltd., manufacturers of "P brand cement waterproofing p Over 8,000 metal-lined wood box use as export packages were e destroyed. We understand that th plies of "Pudlo," or any other firm's specialities, will not be affec the fire occurred some distance fro firm's factory buildings, and reser empties are amply sufficient to m likely demands.

Merchant Venturers' Technical Co

The new plasterers' shop whic been provided in the Merchant Vent Technical College has been fo opened at Bristol. The workshop ha provided by the contribution of a quarter of the cost by the M Builders' Association, a quarter b Bristol Education Committee, an balance had been defrayed by the chant Venturers. The classes are opened at the suggestion, and wit cordial approval, of both the M Builders' Association and the T Union.

New Baths for Renfrew.

New baths have been complete Renfrew from designs by Mr. T. G. crombie, of Paisley, architect. The are the gift of Sir Frederick and Lobnitz. The front portion of the ings is of stone from the Cullaloe Qua and the rear of brick rough-cast. entrance hall, which has a war mem and roll of honour, is carried o English walnut. The swimming-ba 75 ft. long by 35 ft. wide, and 3 to in depth. Rooms are provided for mittee and other purposes, and a lau is a feature. Other baths are prov and electric light and power are inst

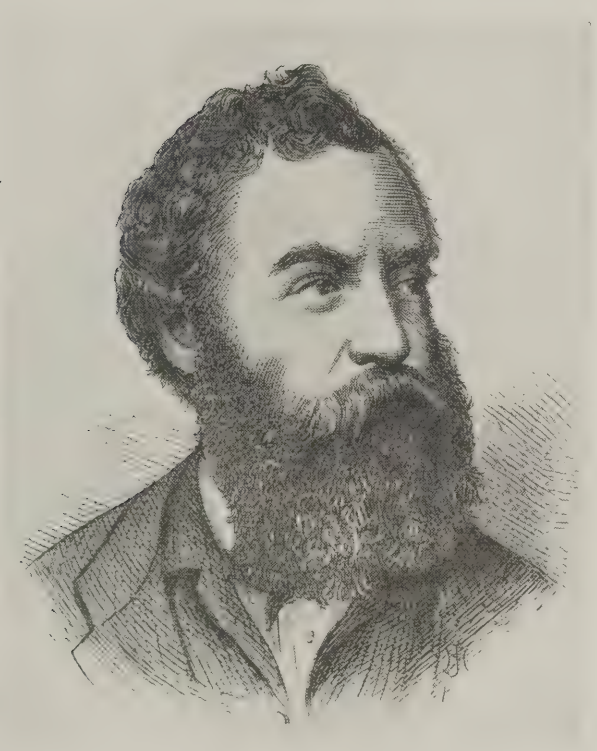
A Wren Summerhouse.

Wren's little brick summerhouse Croom's Hill overlooking Greenwich has been offered to the National T The Trust, while grateful for the find themselves unable to bear the of putting the building into proper re and an appeal is suggested with the o in view. The summerhouse ha moulded brick cornice and finely ga brick jambs. A panel above the arch records the date of the erecti 1672. Internally the main feature modelled plaster ceiling, in which a dome is introduced. The roof is o tile and wood shingles and lead.

nesday, November 9, 1921. Vol. LIV. No. 1401

THE ARCHITECTS' JOURNAL & Architectural Engineer

With which is incorporated "The Builders' Journal"



SIR MATTHEW DIGBY WYATT.

Born in 1820, Sir Matthew was the son of an English barrister. He travelled on the Continent for some years. Afterwards he was secretary to the Exhibition of 1851, and assisted in making the plans for it. Later he was appointed Surveyor to the East India Company, and was honorary secretary of the R.I.B.A. from 1855 till 1859. He published various books, including "An Architect's Note-Book in Spain," "Specimens of Ornamental Art Workmanship . . . . from the Twelfth to the Nineteenth Centuries," and "Specimens of the Geometrical Mosaic of the Middle Ages."

27-29 Tothill Street, Westminster, S.W.1.

Waterloo Place, London

From an Etching by Francis Dodd



Mr. Dodd's etching gains considerable interest from the fact that it records the original condition, architecturally, of Waterloo Place. It may be usefully studied in connection with Mr. Kenneth Cross's article on "The Crowning Tragedy of Regent Street," which appears in a later part of this issue.

THE

ARCHITECTS' JOURNAL

27-29 Tothill Street, Westminster, S.W.1.

esday, November 9, 1921 Volume LIV. No. 1401

Notes and Comments

The R.I.B.A.'s New Session

MONDAY last saw the opening of what is likely to be an exceptionally busy and exciting session of the R.I.B.A. Not that there are any thrills in the programme of lectures. Papers on design, on the internal decoration of ocean liners, on g timbers, on London clubs, on the annals of the alf-century of the R.I.B.A., on colour in architec- nd on recent excavations at Rome, seem innocent germ of violent controversy. Indeed, but for the nd interesting treatment that these innocuous sub- ill certainly receive at the skilful hands of Messrs. ws Davis, Searles-Wood, Ramsey, Gotch, and Ashby, what sedative effect might be anticipated : as if the l would pour oil on the troubled waters through the steering must needs be difficult when the merely ic exercises give place to the really contentious or "live" issues.

doxically, the first of these bones of contention is— It is very natural that opposition should come from who declare that they do not know what unity means. t variant on this profession of ignorance is an inno- eming air of not being sure "what Unification of the ion means in the sense now under discussion." ery urbane dissident is not sure that Unification is a larly desirable thing. That is evidently because he ot understand it. Being a large issue, it means to one thing, to others something different. On one lar point he is quite firm, however—that Unification be a legitimate excuse for altering the character of stitute or for discarding the valuable root principle ich it was founded. This gentleman's attitude on estion is timorous and untoward. It does not follow ecause he can see no good in Unification there is n it. Nelson could not see the signal when he put escope to his blind eye. The objector's fear that tion will alter the character of the Institute and up by the roots there is no need to allay. He him- nfutes it in the prognostication that if a Registra- ill ever passes through Parliament—a remote con- y, he thinks—probably nothing will be effected but ge of name. "Incompetent and tasteless architects ilders will remain, under whatever new designation ight continue to spoil our towns or countryside."

many members of the R.I.B.A., we trust, share this s pessimism. "As you were!" was a phrase for most of them must have acquired a heartfelt hatred army. It meant vexatious delay of a movement ould have to be accomplished sooner or later—the r the temporary and often quite unnecessary set- The R.I.B.A. cannot keep on everlastingly listening ly to "As you were!" nor even eternally marking the same ground. Like all other healthy organisms, ands movement; and like all other "live" institu- t insists on progress as a law of being. It will not till and stagnate. It is not content to be shelved as and dry academical body, mainly concerned with c abstractions. Its membership consists largely of young men with warm blood in their veins. They demand practical issues—that the Institute should specifically and visibly assume the character and influence of an effective force. They have not forgotten its rather humiliating position during the war. The splendid work it did and was prepared to do for the country was not appreciated, the fact being that the Institute was regarded as having no particular standing in the community, no power to influence votes, no megaphone through which to make audible amidst the general din its legitimate claims to attention. By statesmen and politicians it was neither feared nor respected.

As with statesmen and politicians, so with municipalities and other case-hardened bureaucrats. Often the R.I.B.A. asserts with splendid success the rights of its members; but how often does it fail in these efforts because the local authority knows, or thinks it knows, that the Institute "has no punch," and can be defied with impunity? But in gaining greater power and influence, making itself more potent to protect the mundane interests of the Profession, it will not uproot the principles on which it is founded. On the contrary, it will increase its power to propagate and assert them. Its opinions on all subjects will be received much more respectfully when it is seen to manifest in civil life something of the fighting spirit that won its members so much honour in the field.

To sum up in a sentence. Nobody wishes to see the Institute change its character or its principles, but only to develop them. And the reformers, so far from wishing to divest the Institute of its dignity, seek only the means of enhancing it—or, if that be impossible, of acquiring for the Institute due recognition from the State, and hence greater respect from the public, and therefore a further accession of dignity and influence. Incidentally it will be in a far better position to advance the interests of the Profession it exists to serve. Any attempt to narrow its functions to those of a trade union is not contemplated save in the misgivings of the timorous; and, on the other hand, any desire to confine its scope to the disinterested contemplation of æsthetical abstractions is equally a figment of the imagination. The Institute is a human body, and will function variously. To help it to do so with healthy vigour, the body should be imbued with the spirit of association, which is, or soon will be, the spirit of the times.

Union Franco-Britannique

This institution is now in being. Its inaugural meeting was held on October 24, when the original members visited Hampstead Garden Suburb; the French members were formally "received" by their English confrères, and, after attending the first general meeting, were entertained by the R.I.B.A. Council at the Café Royal in Regent Street. On the following day there was a visit to Welwyn Garden Suburb under the leadership of Mr. Louis de Soissons; while next day the delegates, after visiting recent London buildings, visited the A.A. schools, where they had tea with the principal, Mr. Howard Robertson. This happy inauguration of a meeting that has in it the germs of great things for

art and amity, should already have served to correct certain erroneous impressions about us that some of the French delegates may be supposed to share with the generality of our French Allies. A current misconception about us, which our armies in France did but little to dispel, was that none of us know any French. It must therefore have been rather surprising to our visitors to find that half a dozen British architects who "received" them and showed them round were eloquent in that elegant tongue; indeed, three or more of the members of the Institute who had the honour of piloting our guests are as proficient in French as their patronymics suggest that they should be; and the high esteem in which these and other Anglo-French architects have been always held in Britain is of happy augury for the success of the Union Franco-Britannique. It demonstrates how perfectly harmonious a blend can come of such a union; while several excellent buildings in London demonstrate conclusively the potency of French influence on British architecture. The Union Franco-Britannique owes its initiation, we believe, to the fertile mind and good intent of Mr. John W. Simpson, than whom no one has worked more enthusiastically to promote the architectural Entente Cordiale. Nothing but good can come of such a movement.

Northern Irish Parliament Buildings

In the House of Commons on October 28 Mr. Reid was asked to state what arrangements had been made in connection with public buildings for the Parliament of Northern Ireland. The reply made on behalf of the First Commissioner of Works will not be greeted with enthusiasm by the architectural profession at large. It appears that the First Commissioner does not think the times propitious for an open competition. He therefore invited the President of the R.I.B.A. to supply him with a list of British and Irish architects from which a suitable name could be selected. This, in its first phase, is and is not competition. It is a competition of personalities rather than a competition of designs; competition in its most diluted form. After the President has submitted his list of preferential names (and nobody will envy him so invidious a task), who will be "suitably invited," as the official phrase somewhat grotesquely puts it, "to undertake the erection of the necessary buildings"? Nobody; for the manner of inviting is quite unsuitable. There should be an open competition, to give young talent a chance, and to avoid as far as possible all appearance of favouritism. Than the President of the R.I.B.A. there breathes no more entirely honourable, no more conscientiously fair-dealing man. He will have prepared that select list with the most anxious solicitude for the strictest impartiality; and still he shall not escape obloquy and suspicion. Why was such an ungrateful task thrust upon him? It will be asked, still more pointedly, why did he accept it? We wish him well out of the trouble, the storm of disappointed hopes that is sure to gather and burst about his devoted head. He is a brave man to have undertaken so formidable a task. His reply to the request of the First Commissioner of Works should have been, "The fairest course is to hold an open competition. No one can then accuse the R.I.B.A. of favouritism, except, perhaps, in the appointment of an assessor." Government buildings, as everyone knows, are usually designed by the winner in a limited competition—half a dozen architects, perhaps the survivors from an eliminating bout, being invited to take part in a final competition, and rewarded for their trouble whether they win or lose; but in the present instance the Department seems to be in too much of a hurry to follow a precedent that at least gave opportunities to a greater number. It is to be presumed that in the end there will be some sort of deciding competition—that the First Commissioner will not simply shut his eyes and make a random dab at the names on the President's list in the hope that the fates will decide for him; but there is no question that to the majority of the profession it would be far more satisfactory to hold an open competition, and we strongly advise that that course should be at once taken.

The Nemesis of the Lowest Tender

Once again foreign competition and alien labour a seriously menacing certain branches of British industr Local authorities by accepting the tenders of foreign firn and trade unions by putting up the price of British labo to an exorbitant height, are accelerating this most sinist movement. This is no mere vague general statement. W are acquainted with firms with whom it is a specific a substantial grievance, as the following extracts from business note sent to us last week show only too plainl "Unfair dealings in tenders by the various Councils, Boar of Guardians, etc., together with the influx of foreign a alien labour, render it absolutely impossible for any Briti firm, who are compelled to pay the trade-union rates, to able to carry on. . . . These public bodies, it is pla to be seen from the published schedules, accept the tend of foreigners and aliens, rejecting the tenders of pure British firms who employ British labour only, including t discharged and disabled ex-Service men." We earnest commend this protest to the serious attention of Parliame of local authorities, and the leaders of trade unions. each and all of these bodies it must be perfectly obvio that to adopt any policy that favours foreign competiti to the injury of British firms and British labour is ruino to the nation's best interests. Government, which exa so much from British firms, is in duty bound to prote them from undercutting by cheap foreign labour; muni palities, which impose crushing burdens on the ratepaye are under an obvious obligation not to depress the means meeting the heavy assessments; and trade unions, encouraging their members to demand excessive wag are increasing the numbers, now amounting to about t millions, of native unemployed, by playing into the han of the alien worker. To save a few pounds by accepti a foreign tender means in the same operation to depr British industry by reducing the earning opportunities firms and workpeople. This is a matter in which archite may exert considerable influence. They are in a positi to explain that it is not always wise, nor even economic to accept the lowest tender.

The A.A. Presidential Address

Mr. W. G. Newton's presidential address was a model good form. It was especially so in simplicity and gra of phrasing, aptness of expression. It illustrated a enforced his advice to the student to read deeply a widely, and "to develop a simple and forcible style expressing himself in writing or in speech, using the sh word and the simple phrase, rather than the obscurity periphrastic circumlocutions"—that is, to follow Goldsmith rather than Dr. Johnson, and not to make t little fishes talk like big whales. He had a timely word encouragement for those who, in depressing times, find hard to recapture their first fine careless rapture, a begin to weaken on their early conviction that the car of an architect is "worth while"; and his acknowledgme that as a producer of works of necessity the archite hardly competes with the bricklayer, joiner, plumber, w rhetorical rather than strictly true. It is only true in t sense that ours is not hand labour, and theirs is. How they could do without us, but not we without them, is idle speculation upon which happily Mr. Newton did n venture; but we hope that what he did say on the subj will not confirm the less reflective section of the public their unfounded assumption that the architect is sup fluous. They are only too apt to swallow an admissi and ignore a qualification. Mr. Newton, however, m justly plead that he was addressing architects, who wou by no means misunderstand his point. The Presiden address, as will be seen from the full text of it which reproduced on a later page of the present issue, is fraug with wise counsel, expressed with as much modesty clearness. His hearers and his readers will be grateful a practical, unpretentious, and wholly helpful address.

The Guy Fawkes Ball

NEVER before in the history of the Royal Institute have its hallowed precincts witnessed such scenes of revelry as those which enlivened its galleries during the night of Friday last l the first hours of the succeeding day.

'he fancy-dress ball organized by the Royal Academy ·liers was indeed responsible for an upheaval of tradi- ıs, which contrasted strangely enough with the decorum : has learned to associate with the normal use of the mises. And the changed circumstances were not only ected by the ball itself—which drew together a throng merrymakers totalling at least five hundred—but by tain transforming touches of a decorative character ıosed upon the walls.

'he gay-heartedness of those who prepared the galleries the function took various surprising forms. For mple, startling liberties had been taken with the Insti- e's collection of presidential portraits, each of which had n adorned with grotesque costumes or headdresses ıioned out of coloured tissue paper pasted to the glass. se light fancies were evidently suggested by the portrait Ir. Leonard Stokes, who, as every member of the Insti- e knows, elected to be painted in his dressing gown !

'he scheme of decoration adopted for the lecture hall the gallery beyond produced quite a gala effect, and sisted of vertical strips of coloured paper attached to the ls, while the electric-light pendants were converted huge lamp-shades of the same material.

[uch amusement was caused at midnight by a repre- :ation of the execution and burial of Guy Fawkes, ch historic episode was enacted with great spirit by :ral architectural students. Their praiseworthy efforts were, however, somewhat marred by the crowds who completely encircled them and unintentionally impeded their movements.

Many of the dancers availed themselves of the opportunity of being photographed by various operators who were in charge of temporary studios erected on the staircase landing. Reproductions of some special photographs taken for THE ARCHITECTS' JOURNAL appear in this issue, together with several pencil sketches by Mr. Hubert Hastings.

It would be as hopeless as it would be invidious to attempt a detailed description of the scores of original and beautiful costumes worn by those present, in a necessarily brief notice such as this. The spectacle as a whole presented a most animated appearance, and comprised Arab chieftains, Oriental potentates, artists' models, magicians, a cardinal, two Peter Pans, jazz pierrots and pierrettes, Early Victorian damsels, Spanish duennas, cowboys, Mexican bandits, students from the Latin Quarter, and hosts of other picturesque characters.

Captain M. G. Kiddy, the Hon. Sec. of the R.A.A. Dance Committee, is to be congratulated upon the excellent arrangements made for the pleasure and comfort of everyone.

The following gentlemen acted as stewards: H. C. Bradshaw, L. H. Bucknell, W. T. Ching, E. B. Duncan, G. D. G. Hake, E. R. Jarrett, Capt. M. G. Kiddy, Ian MacAlister, F. R. Yerbury.

All profits derived from the ball will be devoted to the funds of the First Atelier and the Architectural Association Atelier for the furtherance and development of architectural education in Great Britain.



AN EGYPTIAN DANCER AND CARDINAL WOLSEY.
(MR. AND MRS. F. CHATTERTON.)



Photos: "Daily Mirror."

GUY FAWKES.
(MR. B. E. DAWSON.)

Among those who bought tickets for the ball were the following :—

F. E. Bailey, The Lady Diana Duff-Cooper, H. G. Montgomery, Sir C. T. Ruthen, H. M. Robertson, E.F. Etchells, M. P. Saunders, A. J. Davis, A. F. A. Trehearne, F. N. Jackson, M. Tobias, A. P. Lloyd, P. B. Tubbs, S. Hamp, H. Favarger, P. Waterhouse, G. G. Scott, J. W. Whiter, L. G. Ekins, — Rice, F. E. Bayliss, A. E. W. Johnson, Miss Hudson, W. G. Newton, S. Bylander, Miss Long, A. L. Kiddy, Mrs. Morris, R. Curry, H. W. Wills, E. S. O. Lawrence, W. E. Wanmer, L. R. Thin, W. J. Whiteside, Mr. and Mrs. F. Chatterton, Miss Belle White, G. H. Ledger, F. G. Baker, Miss Grantham, A. Brown, J. H. Pitt, Mr. and Mrs. Kiddy, M. A. Thornley, H. M. Ewing, Miss Binnie Hale, K. Boney, C. McArthur Butler, S. R. Lloyd, E. J. Sadgrove, J. Haynes, E. E. Lawrence, Jim Chester, H. Godfrey Evans, Miss Hicks Beach, Miss J. Pyman, S. J. T. M H. Hastings, A. Gordon, Willie Clarkson, Leslie Henson, Miss E. C Watson, Mrs. Jameson, — Prescott, R. Garraway, W. Glover, G. Noble, F. J. Buckland, A. L. Farman, M. L. Anderson, B. W. Cr E. W. Lewis, H. A. Mealand, B. Marriott, H. Thompson, R. G. Boo E. R. Jarrett, Miss Bowie, J. Bowie, G. H. G. Hake, J. Melhuish, R. Maddock, Miss W. Ryle, Miss Fetch, Miss Moberley, Miss A. F. Jon J. Grey, R. Foucar, L. Simpson, S. C. Kirby, H. C. Bradshaw, L. Bucknell, W. T. Ching, H. A. Clist, Mrs. Townsend, Miss Macfady W. Walcot, Miss Hane Douglas, Miss G. Farman, B. Greenway, — Crit ley, H. Douglass, J. B. Mendham, — Butterfield, Miss Walker, H. Constantine, A. Vernon, R. O. Morris, E. E. Fetch, Mrs. Coatalen, F. Yerbury, Mrs F. R. Yerbury, R. Stoddart, Mrs. Stoddart, W. Webling, G. B. Duncan, G. D. G. Hake, Ian MacAlister, The Brit Luxfer Prism Co.





Photos : "Daily Mirror."

GROUPS OF DANCERS AT THE GUY FAWKES BALL



SOME PERSONALITIES AT THE GUY FAWKES BALL. CARICATURES BY H. DE C. HASTINGS

The Crowning Tragedy of Regent Stree

By KENNETH M. B. CROSS, M.A. (Cantab.)

IT is now a little more than a hundred years since the inauguration and execution of the great town-planning scheme which was to transform London under the Regency. In 1813 Nash was commissioned to design and supervise the construction of a thoroughfare and, with the exception of two blocks designed by Soane, of the buildings extending along it; this roadway was to connect Carlton House, the temporary residence of the Prince Regent, with Regent's Park, where an appropriate villa was to be built to accommodate his Royal Highness. The villa, however, was never erected, but the street, which is very nearly a mile in length, passing from Waterloo Place across Piccadilly and Oxford Street to Langham Place, was completed by 1820.

Since that time the whole fabric of our civilization has undergone changes which in their cumulative effect are little short of revolutionary; the introduction of machinery and the subsequent commercial activity which ensued have formed a very distinct dividing line between the days of Victoria and those of the Georges. The spacious dignity of the good old times, mellowed as it was by "routs" and port and courteous ways, has given place to the wild scramble which now typifies life in our smoke-besmirched town; and an ever-increasing lust for gold distinguishes present-day mentality from the surely not less ennobling spirit of erudition and culture which strove to make of straggling, haphazard, mediæval London a city "Augustan" in its form. For although Nash and the plaster artists of his time represent the last flicker of a tradition that was to give place to the superficialities of fashion with which in Victorian days our architecture was to be loaded, these men were essentially Georgian in outlook and expression.

From the palace which was to be built in Regent's Park, a truly royal approach, of squares, crescents, broad roads, and a colonnaded quadrant, was to be made to the West End. The work was to be done under Act of Parliament, and it was to cost about one and a half millions. Magnificent buildings extending for very nearly a mile in length were to give to London a thoroughfare and a shopping centre of which any capital in Europe might well be proud; for the scheme was treated on broad lines, blocks of houses were designed as a whole, and each block, though distinct and individual in treatment, bore some relation to its neighbour—pediments and domes, projections and recesses, pilasters, piers, architraves, cornices and fenestrations, a perfect orgy of excellent detail, treated in plaster with an inventiveness and restraint, a harmony in composition, and a suitability of purpose which were a never-failing source of joy to the casual observer, and an inspiration to the more highly specialized. The bold sweep of the Quadrant, with its lofty colonnade, removed in 1848 for commercial reasons, produced a fine monumental effect, and afforded to the passer-by the added charm of ever-changing light and shade. The vista from Waterloo Place terminating in the London County Fire Office, in spite of recent depredations and excesses, still retains some reflection of its ancient glory, and the church of All Souls, with its detached tower and spire closing the vista near Langham Place, is still visible from Oxford Circus.

In construction, Nash's work was as sound as it was simple; the walls were built of London stocks faced on the exterior with smooth cement rendering, or stucco, which was popular at that time, providing, as it did, an admirable surface for working mouldings or casting or mentation and enrichment. The colur were formed of rough-hewn timbers ab 9 in. by 9 in., fixed vertically, and b out with firring to little less than t ultimate diameter, and to this imp vised core the plaster was applied. Th who have witnessed the recent demolit of the work can answer for the soundn of this method of construction. Whe fine smooth surface had been obtaine was painted. Although modern habitants of London are inclined to v plastered buildings with a certain meas of equanimity, on account of the e with which they may be renovated kept clean, it was fashionable some ye ago to carp and cavil at the dishonesty stucco work; and well-intentioned g tlemen, who were prepared to prod early English railway stations at asking, disliked the nasty cheap unc hand way of plastering a house and t painting it white "to look like ston How many, it may be asked, have b taken in by a hoax so simple, so naïf transparent? It is more likely t stucco was applied and painted purely its own merits because it provided a go durable and easily renewed surface, not because it tickled the fancy of so contemporary Mr. Jingle. Stucco, trea frankly as such, and regularly repaint is, as it happens, more appropriate to foggy atmosphere of modern Lond than brickwork and the vast majority building stones, if our metropolis is cast aside the funereal garb which it fast assuming. The unsuitability of more orthodox materials to present c ditions is emphasized by the extens use of various washable pottery produ of a sanitary appearance reminiscent public lavatories with which we face latest essays in the Augustan manner.



PLAN SHOWING THE REGENT STREET IMPROVEMENT SCHEME OF 1813



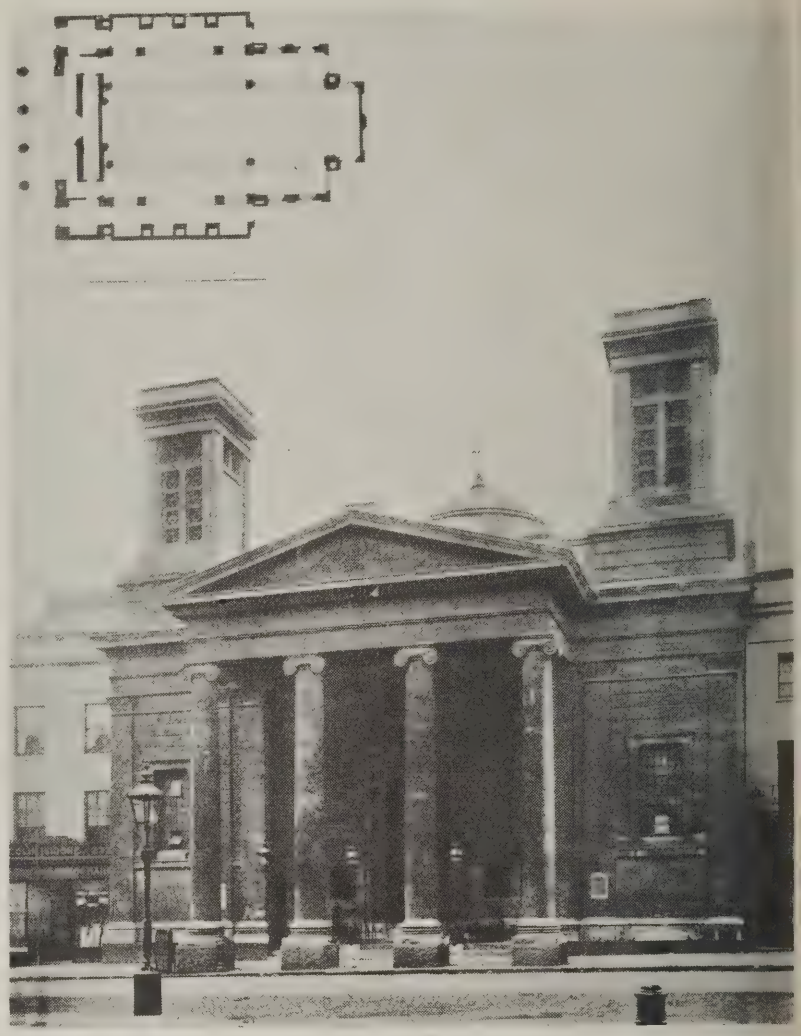
THE QUADRANT, REGENT STREET, IN 1822.



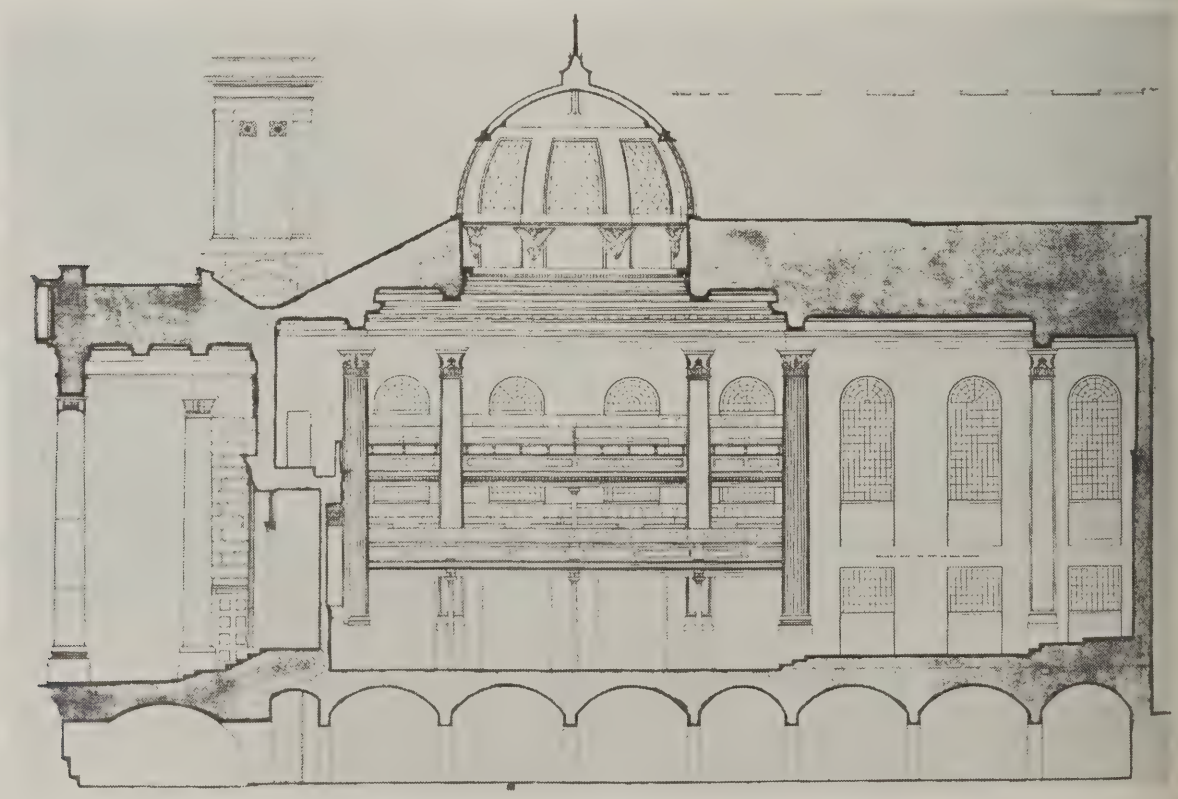
THE QUADRANT, AS IT IS TO-DAY

Nash's Regent Street survived, fairly intact, until very recent times, preserving, in spite of the amputation of the colonnade in the quadrant and the insertion of many honours at the hands of shop-front designers, a characteristic beauty which was quite unrivalled in London. More recently, however, gap after gap has been formed in the old work, and modern buildings of various heights and different degrees of merit have thrust themselves upon the public gaze. The erection of an "art nouveau" fountain in Piccadilly Circus was unfortunate, and its author fled our inhospitable shores; but Nash's Regent Street received its death blow in the demolition of a large part of the Quadrant and the subsequent erection of the Piccadilly Hotel. Where our forefathers had modestly and beautifully built with timber, brick, and stucco, we must, perforce, erect a more perpetual, and it is to be feared a more appropriate, memorial to the taste of our time in the illiterate ostentation of our best monumental manner. An amazing riot of masonry now displays before our astonished eyes Scottish turrets, cloud-capped chimneys (most of them, as previously announced in this Journal, snares and delusions and incapable of serving any useful purpose), dormer windows of differing shapes and sizes, with here and there an escape staircase to add a feeling of security to the scene. There is in all this something very different from the skyline which Nash designed.

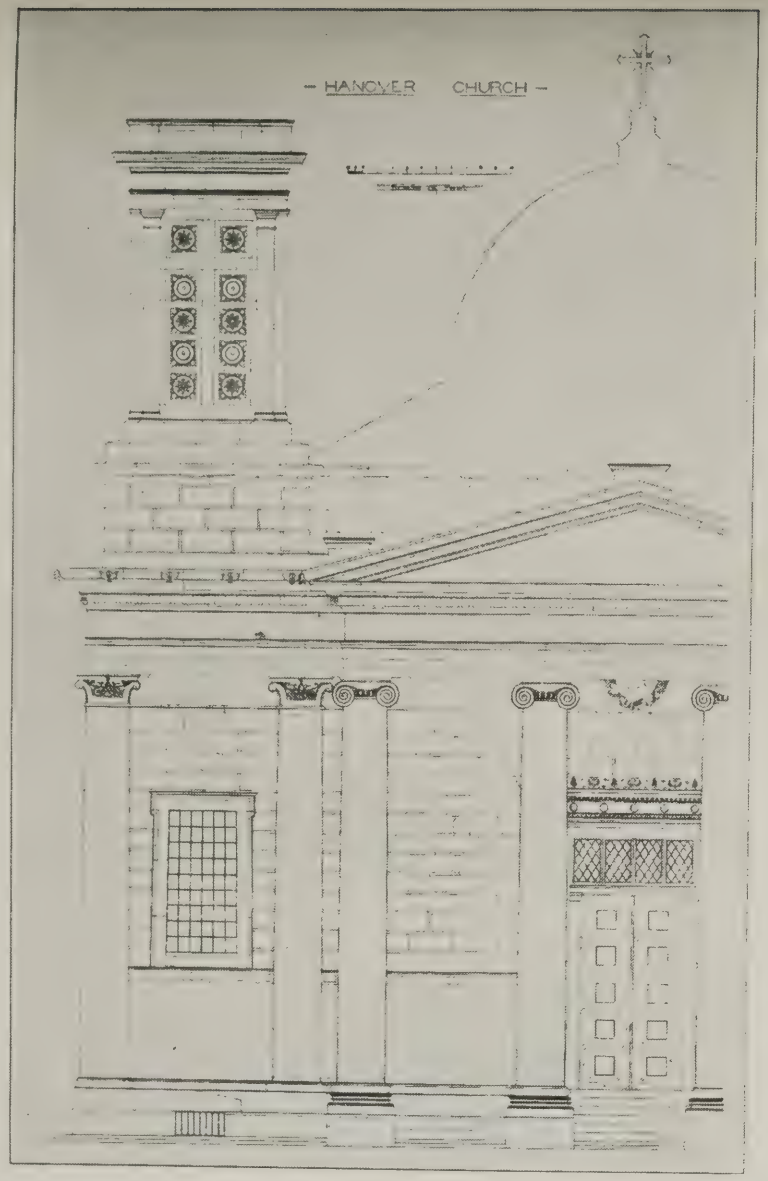
Since the war the destruction of Regent Street has been proceeding with renewed vigour and intensity; the burning of priceless art treasures under the frenzied leadership of Savonarola was not more ruthless nor more complete than the destruction of all that is beautiful in London which is taking place to-day. But the motives in each case are unfortunately different: excess of puritanical zeal can possibly be condoned; the unrighteousness of mammon can never be extenuated. One may perhaps be pardoned for expressing feelings of the profoundest regret at the passing of that which gave us, if we cared to use it, one of the sou guides to the resumption of our lor abandoned architectural tradition.

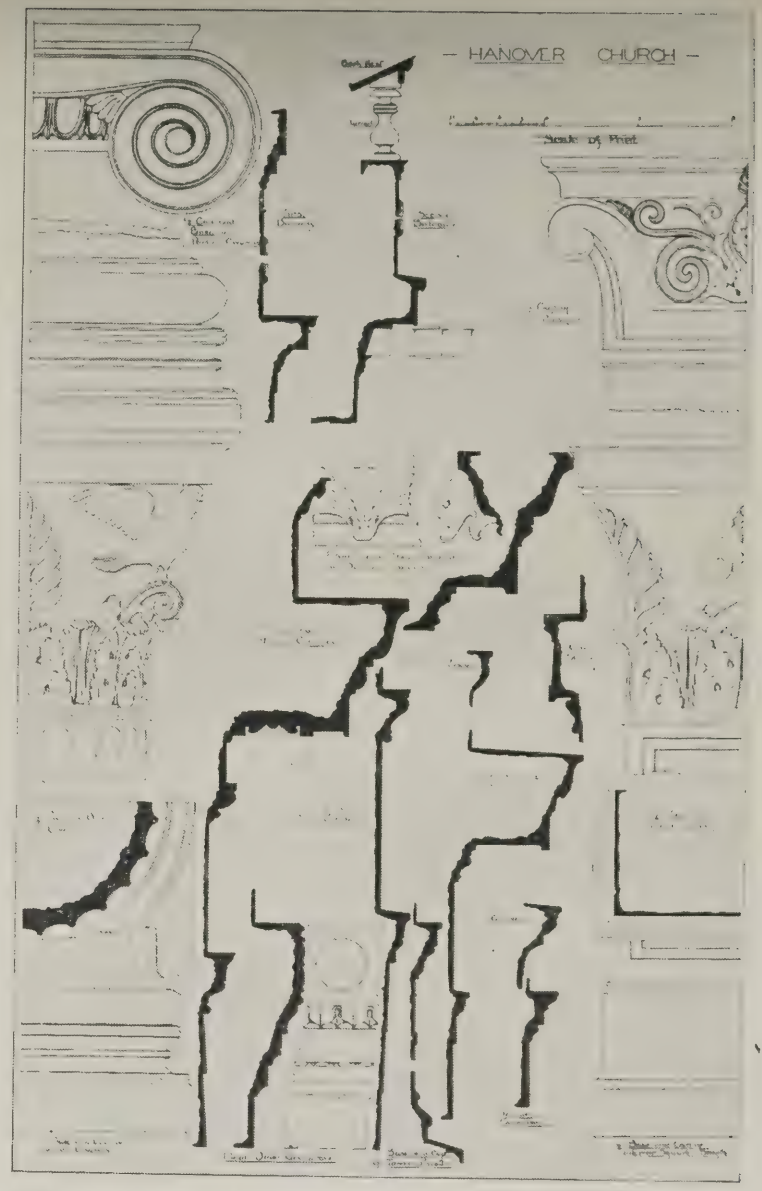


HANOVER CHURCH, REGENT STREET (NOW DEMOLISHED)



HANOVER CHURCH, REGENT STREET: LONGITUDINAL SECTION. C. R. COCKERELL, ARCHITECT





Hanover Church, Regent Street (pulled down about 1902), was one of Cockerell's earliest works. Architecturally it was a beautiful and original building, with much refinement of detail. With regard to planning, it provided a very difficult problem, the entrance having to be at the east end, and therefore behind the altar. Moreover, the floor space was so small that two tiers of galleries had to be provided. Both these difficulties were overcome with complete success.

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Early Nineteenth-Century Architecture. 19.—Regent Street, London



LOWER REGENT STREET, WITH CARLTON HOUSE IN THE DISTANCE.



BUILDINGS ON THE EAST SIDE OF REGENT STREET, 1828.

The Regent Street Improvement Scheme was designed and carried out (mainly by John Nash) between the years 1813 and 1816, at an approximate cost of a million and a half sterling. To-day, after the lapse of little more than a century, many large sections of this remarkable scheme have disappeared, and the remainder of the work is scheduled for demolition. The contemporary prints reproduced above convey a good idea of the street as it appeared early in the nineteenth century.

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How to be a Student*

By W. G. NEWTON, M.C., M.A. (Oxon), A.R.I.B.A.

ROPOSE to say a few words to-
ght on the subject of how to be a
ident. I am sure that, if any
noticed the subject I had chosen,
ll have said to yourselves, "What
e know about it?" And, indeed,
I consider your achievements in
tition with other schools, or see
orking in these studios (a sight
as you know, brings wondering
sors from Paris and even from far
, or am invited to your plays and
ts and cricket matches, my heart
to water when I realize that I am
the presumption to speak to so
assembled efficiency on how to be
ou are being. The one thing that
me up is the certainty that you
have no hesitation, if you had the
unity, about telling me how to be
hitect, or how to be a president.
have anyhow the advantage of first

Dangers of Environment

, to begin with, there is, I think,
danger in the habit of comparing
with school and student with
t—the danger, I mean, of develop-
intensive culture, and going round
e within circle, the danger of being
coloured by environment. To
your face green for swimming
a moat in order that a German
may mistake you for a water-lily
l perhaps when you are escap-
om a prisoners' camp. But we
n't wish the protective colouring
so good that we remained in the
or always. It is sound, I am sure,
away from the environment at
to look at the schools and ourselves
n external point of view.

ne first place, why be an architect
? It is all-important to develop
iction that our career is worth
-and worth while, I mean, not from
nt of view of income (no one would
paradoxical as to maintain that
), but from the point of view of
service. In times of distress and
upheaval, such as our own era, we
to think of most real importance
community those who produce the
without which we cannot live—
d bread and shelter. And some-
ve architects seek to justify our-
rom this standpoint, and say that
us houses could not be provided.
ey can, and in the mass they have
the past, and probably will be in
ure. The bricklayer or the joiner
plumber is necessary. But not we.
must be honest with ourselves,
must take a higher ground. What
learning that architecture is?
ass production of shelter? Cer-
not. Or is it in the main sanita-
l stability? We are not so learning
, so far as we can, we are learning
uce all the time and every time
gs that are fit for their purposes
r to look on, buildings that will
orthy background for the lives of
who come after us. We are not
ly producing shelter, the neces-

saries of life. We must take a higher ground. What we will say is that we, and all those whose aim is to produce what is fair and beautiful, are the only justification for those others. If life were nothing but coal and bread and shelter, eating and drinking and evading discomfort, then, indeed, we have no business in it. But man hasn't lived for twenty-five centuries beyond Plato to go back to believe in the "hog-life." The necessaries are the "sine qua non est," but the beauties are the "sine qua non debet esse"—the without which nothing is worth having. In a crude economic view the beauty-maker is a parasite in a community. So is the pearl among the oysters.

So then we shall first of all need to establish our conviction as students that what we are doing is worth while. And we see that we have a high mission, something that perhaps sets us apart from the mass of our fellow-citizens. We like what they do not understand; we pursue what is to them foolishness. We seek an ideal, but in order to justify ourselves to them we often have to pretend it is really drains or floor-loads in factories. We are somewhat set apart, and by a defect of reasoning we sometimes think we ought to mark that aloofness by difference of dress or appearance, by wearing our hair long, or only shaving on Thursdays. But the greatest men have always been the least *poseurs*. I think it is Chesterton who somewhere writes that the second-rate genius is odd and rude, like Whistler; the first-rate kind and natural, like Shakespeare.

The Ideal Student

And if I talk a little more on the subject of character, I hope that those of you who are already mature and may have commanded battalions against the enemy will not take offence. In fact, all of you will, I hope, apply anything I say not to yourselves, but to your next-door neighbour, which is a comfortable sort of instruction by proxy. But what I am trying to do is to rough in the outlines, to make an "esquisse," of the ideal student in the abstract. For, after all, what you and I think now is important, for we are initiating a tradition, and it may be forging shackles, for our successors in this place. Well then, I feel that this ideal student you and I are considering wants to be above all a "full man," touching life at many points. Exacting as the study of architecture is, and demanding long hours and unremitting industry, we shall not want our student to develop solely his powers of design, with all that implies in the way of allied study and knowledge. We shall want him to read deeply and widely, and make himself familiar with the thought and the history of other times; we shall want him to develop a simple and forcible style of expressing himself in writing or in speech, using the short word and the simple phrase, rather than the obscurity of periphrastic circumlocutions. He will say, for example, "These men will go abroad to these places," rather than "The undermentioned other ranks will proceed overseas to the following destinations."

He will keep himself fit by taking that form of exercise which he likes best. And if he really can find the time, between all his other activities, he will join the Artists, not so much to learn soldiering, as to spend a fortnight in the year very intimately among a crowd of his fellow-citizens who don't care a row of pins for his ideas on baldachinos or rendering or monumental planning. Thus will he develop by contraries.

"Get Away from School"

But above all he must get away from school and paper for a month or two in the year, and go about to see what men have built in other times and other places. Our own country, as you all know, is full of beautiful things, and there are few better ways of spending a week or two than exploring, with a map in your pocket and a pack on your back, the treasures at your door. There one day, as your fingers caress the mouldings of a screen in some West Country church, and the wind stirs a flag tattered at Waterloo, and the old smell of bones and plaster is around you—at such a moment will you get an authentic taste of antiquity, and for a flash seem to understand what the old men were about in their building and fighting and praying more certainly than any text book will tell you.

Of course, this is romance, you will say: these intuitions of the past have nothing to do with pure design. But I think that anything which awakes the imagination and calls up visions and insulates from the present is of value. Who knows what are the springs of our inspiration? Who can say, "Where is fancy bred?" But if we have a month to spare, France will be calling us, or Italy; and this, not because they are richer in beautiful things, but because there is a certain freedom and abandon about being abroad, which is for a student a quarter of the battle. In our own country someone is always, we feel, crying "Hi!" Vergers shuffle about cathedrals, gardeners eye one suspiciously from terraced walks. For this you must get leave from the Dean; for that pay a call on the Squire.

But abroad you are expected to be a student, to walk about on cornices, and explore the back parts of altars. There is about it all a helpful lack of stiffness and apology.

And yet I have a suspicion that some of you don't go in for prizes and studentships, not because you know you won't get them, but because you are afraid you may. I may be wide of the mark, but I have come across students who seemed overwhelmed with the thought that in a few weeks' tour abroad they must pile up a given amount of spoil in the way of drawings and studies and measured records. There seemed so much to choose from that it was absurd to begin in one place rather than another.

There are three embarrassments, each with its own inhibition. There is the difficulty of language, the difficulty of choice, and the physical difficulty of large drawings on travel.

As to language, in Rome and the neighbourhood, of course, all students can come under the wing of the British School.

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*dential Address to the Architectural Associa-
ered on Oct. 31.

But North Italy is too far from Rome for this, and I hope it may be possible to establish some system of Italian aunts who will arrange to give a student anywhere introductions to someone with local knowledge and influence, a local architect, or the secretary of a learned society and so on—someone who could in one day do for the student what it would take him a week to do for himself. This, I think, would be well worth doing.

As to the difficulty of choice, where to go, and what to begin with, to a great extent, of course, the student will be guided by his own tastes and the advice of his instructors. But I would like to urge two things—one, that before going out he should get thoroughly interested in the history of the place or district he is going to, and read all he can about it—not only about the architects, but the painters and cardinals and bandits, what the barbarians did there, and what the Romans, and why it ever started being a town at all. So will everything he sees when he gets there be twice as interesting. And secondly, that he should have some clue, some sort of backbone to his studies—either follow one man in his varying expressions, or one kind of building in its different developments, or re-create a monument that has been altered by time and later hands. This last sort of restoration work is, I think, admirable, not so much as a contribution to archæology (that may or may not be of value), but because it appeals to the detective instinct, sharpens the observation, sends the student to dig in the local library, and to run about comparing other works with the one he is studying. He is at full pressure all the time, and enjoys every minute of it.

As to the double-elephant board and all the paraphernalia necessary for large rendered drawings, they are certainly a clumsy addition to our kit. I shouldn't wish to undervalue a fine set, measured and drawn and finished on the spot (the wise man will leave nothing to be completed when he gets home; for to compare what is drawn with what is built is half the education of it all), but we mustn't be hypnotized by the demand for something which will make a show at home. It is the getting things into our heads that is the true training, the analysis of plan, the handling of mouldings, the being about in a three-dimensioned fact, and while we are in the midst of it recording it in two dimensions. Much can be done on a 14 in. by 10 in. block of squared paper—or better still, clip two or there squared sheets flat on a piece of cardboard. This is always handy and always flat, and never blows about. And spend a day thinking and walking about the building you are studying before you do any drawing at all. And now and then in the middle of it all break right away, and plunge into water-colours, or play with the bambini, or go a walk in the hills and write a sonnet to the sunrise. Nor let us copy, on the reverse, the fallacy of the Ruskinites, and refuse to look at any work built at an unfashionable date. Study one period if you will, but learn to enjoy them all. It may be that the sun-drenched porch of San Zeno will tell you more than all the gates and palaces of San Michele. Don't be overruled in your tastes by the prophets who preach one way of salvation. And only pay so much attention to your President as is due to one who is your fellow-student.

Discussion

In proposing a very hearty vote of thanks to the President for his illuminating remarks, Major Maurice Webb amused the company by suggesting that the most obvious method of being a student was to "join the Architectural Association"! The speaker felt confident that both the maturer students and also those who were less advanced in their studies would equally gain by the imaginative and yet practical survey of the subject to which all had listened with such pleasure and profit, and he trusted that spokesmen from both categories would not hesitate to express their views quite freely. Major Webb concluded by referring to the proposed revival of one or two of the A.A. plays, which he thought was well worth doing.

Sir John Burnet, who was the guest of the evening, in congratulating the Association on the privilege it had enjoyed in listening to the President's address, drew attention to the immense responsibility incurred by practising architects. In developing the theme, Sir John drew an analogy between the architect and the general, and contended that it was as necessary for the former to be acquainted with the possibilities and limitations of every craft employed under his direction, as it was for the general to know exactly what could be accomplished by the various technical and administrative units under his command. Speaking of foreign travel as an educational factor in the training of the student, Sir John expressed the opinion that it was of the highest importance to learn first of all how to see. He believed, and knew it by experience to be true, that the faculty of discrimination and criticism could be acquired by wide and intelligent study, and that when the mind had received this preliminary training it was equipped to derive lasting benefit from an ordered examination of the actual masterpieces of the Continent.

The formal business included the announcement that there were 81 nominations for membership during the month.

R.I.B.A. Final and Special War Examinations

The Board of Architectural Education announce that the designs submitted by the following students who are qualifying for the Final and Special War Examinations (alternative problems in design) have been approved :—

Subject LVIII.

(*a*) Design for a Triumphal Arch :—

Lomax, A.
Sugden, H. D.
Tyrer, R. G.
Minty, R. J. H.
Sidnell, W. E.
Sutcliffe, T. W.

(*b*) Design for a Hostel for fifty Women Students :—

Allison, F. W. H.
George, G. W. H.
Jenson, A. C.
Knewstubb, F. W.
Palmer, K.
Cogswell, V. G.
Gunston, E. L.
Kirby, E.
Minty, R. J. H.
Shroff, L. F.

Designs for various other subjects submitted by the following students have also been approved :—

Alward, W. W. (2)
Angus, A. E. (3)
Blakeley, T
Bramwell, J. (2)
Griffith, H. N. (3)
Hines, E. G
Killender, H. C. (2)
Martin, N. (2)
Riddell, W. B
Slater, C. (2)
Townsend, A. C. (2)
Winn, T. J. R
Andrews, C. D. (2)
Beasley, A. (2)
Bowring, J. V. (2)
Crowther, J. H. (2)
Haswell, P. B. (4)
Jones, T. I.
Killender, S. C. (2)
Pritchard, H. W.
Ryle, Miss W
Thompson, C. C
Walker, I. (2)

R.I.B.A. Council Mee

The following business was tran at the last meeting of the Council R.I.B.A. :—

R.I.B.A. Premises.—The complet the purchase of No. 10 Conduit S the letting of the building on satisf terms, and the reconstruction o council room and office were repor the Council, and votes of thanks in t of Mr. Sydney Perks, Chairman Finance and House Committee, a Mr. Arthur Keen, Hon. Secretary, recorded on the minutes.

New Members.—The Council app the applications of eight candidat the Fellowship and 114 candidates f Associateship.

Civic Survey.—It was reported t Council that arrangements had been for handing over the Civic Surve grams of Greater London to the L County Council, the diagrams of Yorkshire to the City Corporati Leeds, and the diagrams of South cashire to the Manchester and D Regional Planning Advisory Commi

Conditions of Contract.—The R of the Conditions of Contract Conf with regard to the drafting of new ditions of Contract was approved.

Competitions.—The Competitions mittee were authorized to confer representatives of the Society of A tects in regard to the more eff control of competitions.

Undercutting in Housing Fees.— Council ordered that a report o action taken in a case involving undercutting of fees in connection w Housing Scheme be published in Journal for the information of meml

Sealing of Contracts with P Bodies.—The Council directed tha attention of members should be to the importance of ensuring tha contracts with public bodies shoul under seal.

Reinstatement.—Two ex-Fellows one ex-Licentiate were reinstated By-law 23.

Fees for Housing Work.—The P dent reported the progress of the neg tions with the Ministry of Health o subject of the scale of fees for ho work, and the Council directed th joint meeting of the Practice Sta Committee and the Committee of Ho Architects be summoned at an early to prepare a report for the General P

Unification and Registration.— Council were informed that the repo the Association on the Unification posals would be completed at an date. It was accordingly decided the report should be circulated to Council, and referred to the Condition Membership Committee for considera

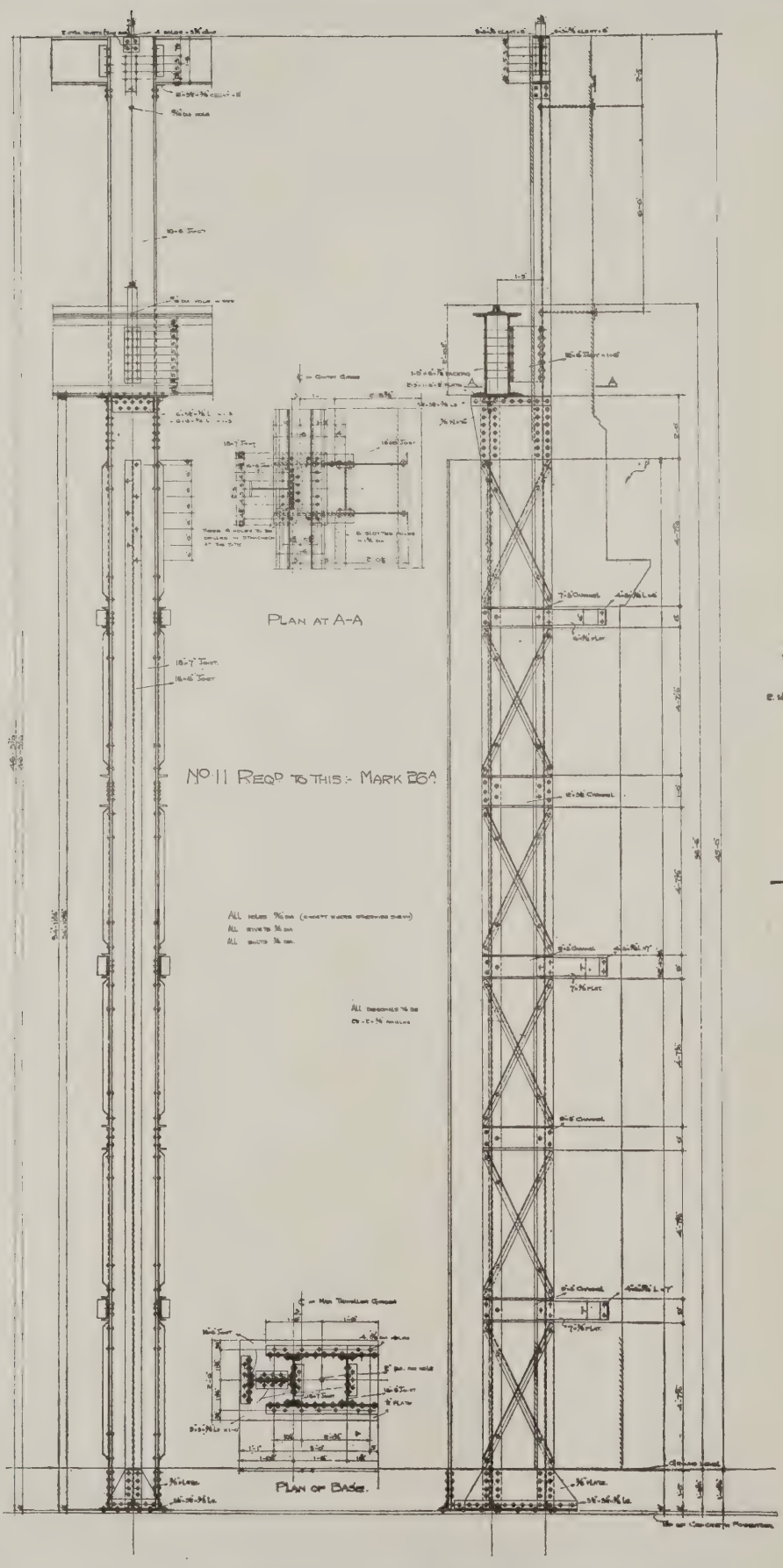
Board of Architectural Educatio The Council approved the list of Advi Members proposed by the Board of A tectural Education for the Session 192

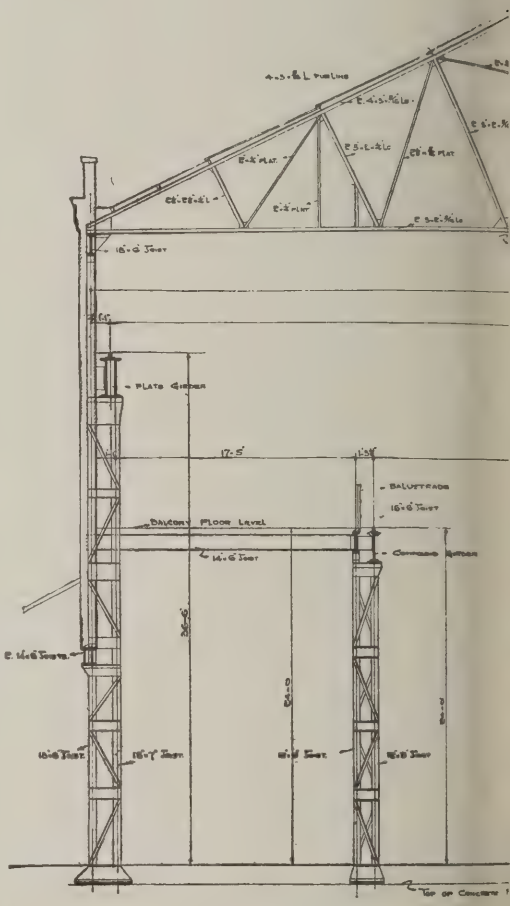
(see page 577).

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Turbine Manufacturing Workshop for the Brush Elec

A. J. W





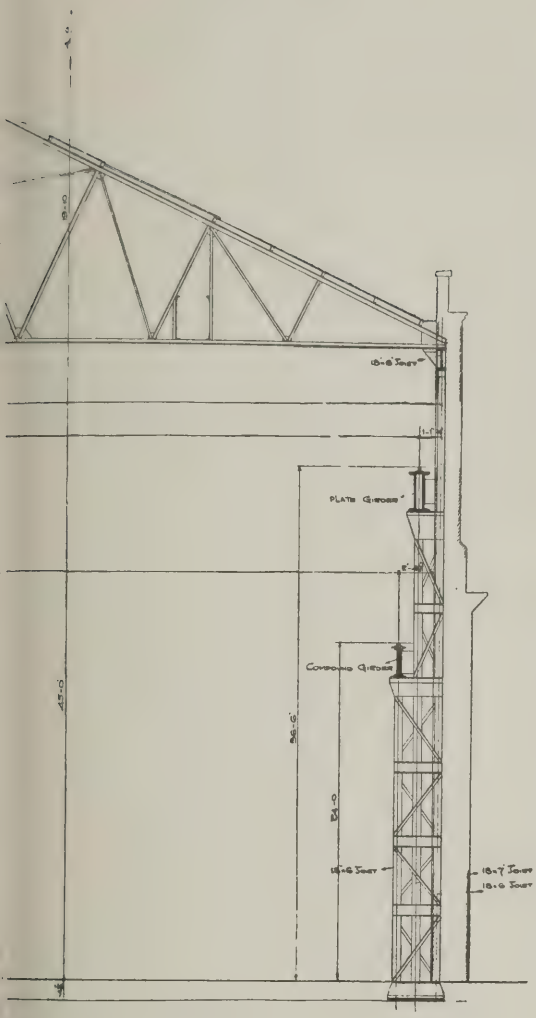


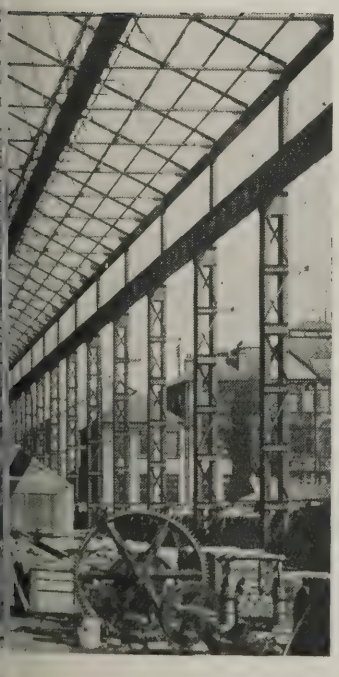
DETAIL OF STANCHEON CARRYING UPPER TRAVELLER TRACK AND ROOF

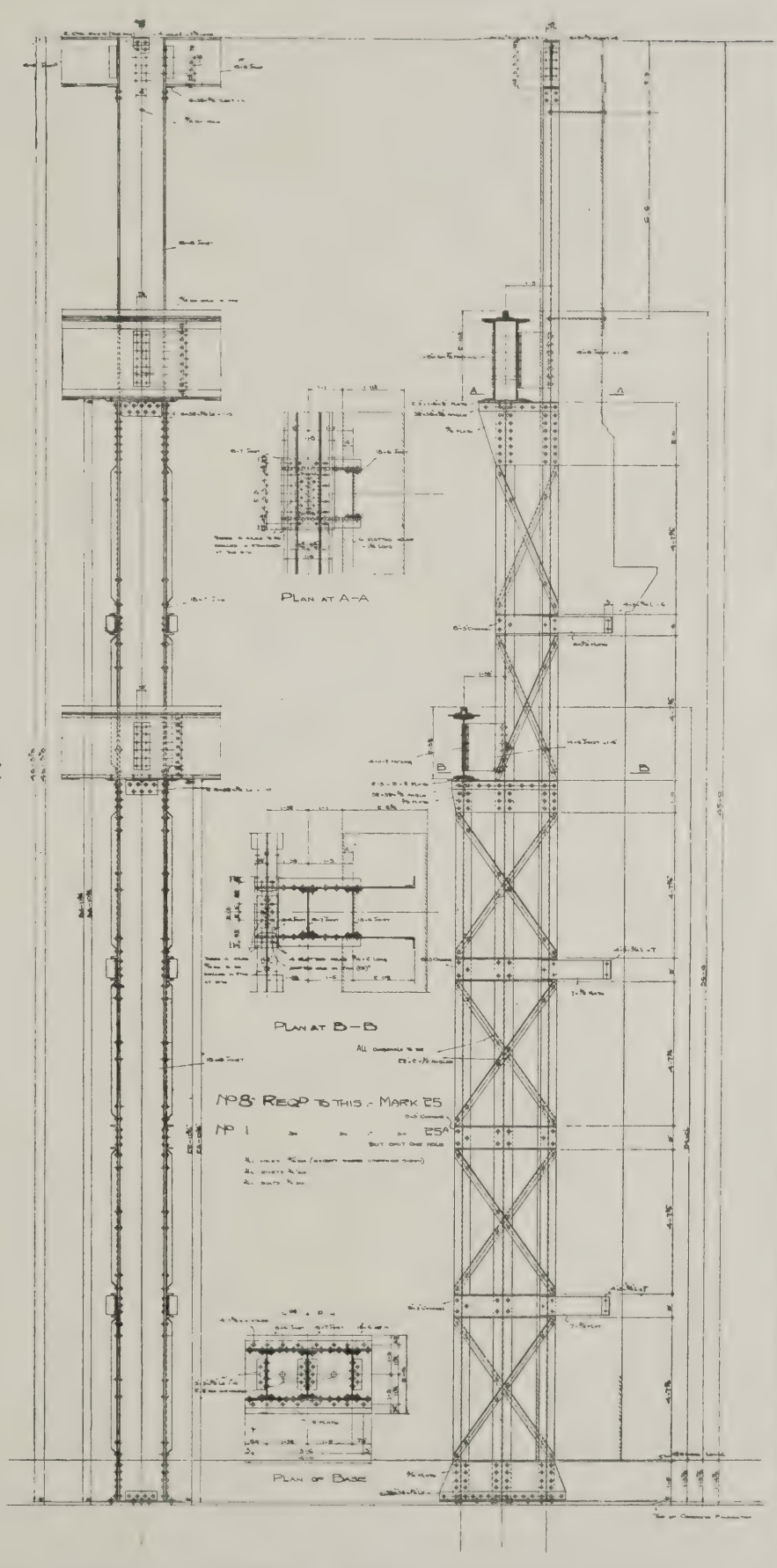
Se

eering Co., Ltd., Loughborough : Details of Steelwork

Architect







DETAIL OF STANCHEONS CARRYING TWO TRAVELLER TRACKS AND ROOF

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onstruction. 21. A Turbine Manufacturing Workshop

HILE travelling about the country the architect often sees, to his great dismay, many buildings that ously have been erected in a hap-rd manner by people who have not n the trouble to seek properly fied advice. In many cases these ings are "eyesores" to their ities, and it is very difficult to imagine owners, by adopting this principle, secure any advantages either in the l cost of building, or in the continuing of maintenance. It is regrettable to hat many owners appear to think that ne is capable of erecting their fac-s or workshops, and do not realize ltimate economy of employing an tect, who has at his disposal the ces of experienced specialists in particular branch of the work.

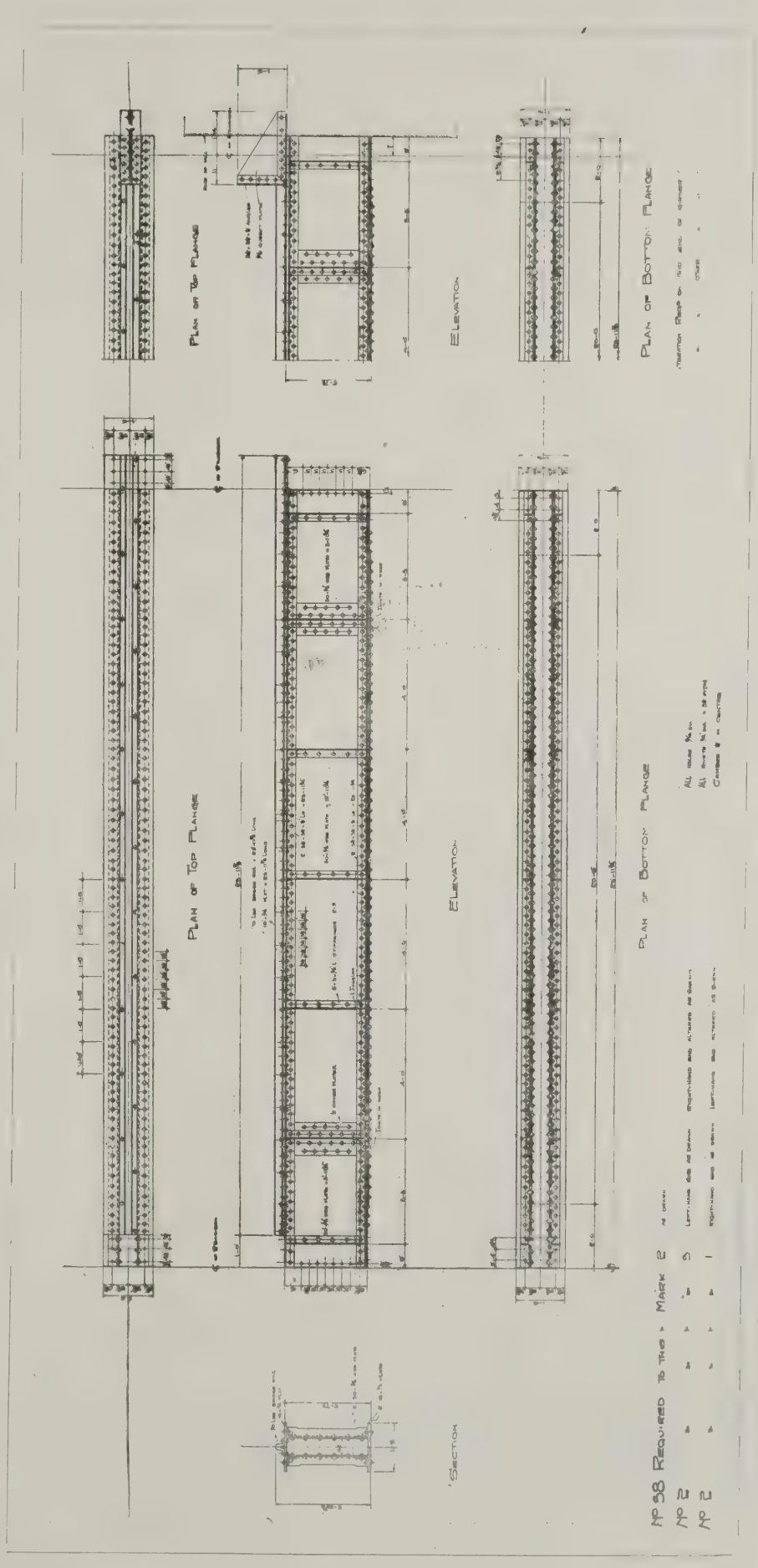
rtunately there are owners who act ently, and wisely. Such an instance und in the turbine manufacturing shop of the Brush Electrical Manufac-g Company, Ltd., the structural ork of which is shown in the npanying illustrations. Owing to ize and weight of the loads to be ed, it was deemed advisable to the whole structure by means of ork, and to clothe the building surrounding walls, treated in a suit-architectural manner.

s extensive building was planned ve ample facilities over the whole area of about 40,000 superficial feet ting and handling the loads. Heavy are involved, to cope successfully which a gantry carrying two travel-cranes was provided through the length of the workshop. These designed to lift any load up to ns, span 75 ft., are placed nearly above the main floor of the build-

ddition, a lower gantry, carrying ing cranes capable of lifting 20 tons is arranged for about half of the of the workshop.

loads and heights mentioned neces-l the use of heavy stancheons on ides of the building, and, as will be from the illustrations, a braced und section has been adopted as suitable for the purpose. One leg stancheon is carried up to support ves joists and roof. In addition, ber of the stancheons are specially d to carry jib cranes, with a large fixed to the side, so as to serve areas of the workshop. Adjacent secondary crane a balcony has been d to increase the flooring space le for lighter machinery. This is approached by iron staircases, also served by a lift from the main vel.

roof of the building is in one span, of the usual centre ridge type. It ed by steel roof principals, resting eaves joists previously mentioned; el purlins are provided throughout. portion of the area is provided tent glazing to give ample light workshop. The lighting is further d by the provision in the sides



TURBINE MANUFACTURING WORKSHOP, LOUGHBOROUGH: DETAIL OF GIRDERS FOR 40-TON TRAVELLING CRANE.

of the building of large steel sashes, with steel channel mullions and transomes. To ensure adequate ventilation a lantern fitted with opening sashes is placed along the length of the roof and its sides.

It is especially necessary in a high building such as the one illustrated to consider many points which are usually thought to be of minor importance. For example, access must be provided for cleaning the glazed portions, and for adjusting any movable portions or artificial lighting attached to the steelwork of the roof. In the present case, this has been done by the provision of three gangways of light latticed construction from end to end of the building. The gangways are carried on the members of the roof principals, and are approached by ladders at the gable ends. Access to the outside of the roof is also obtained from these same gangways.

The type of main gantry girder adopted is clearly shown in the illustrations. The lower gantry girder is of somewhat lighter construction owing to the reduced load on the travellers. Every effort has been made to make the structure as light as possible, consistentwith adequate strength and stability, and to comply with the requirements of good structural design.

The architect was Mr. A. J. Wood, A.R.I.B.A., of Leicester, and the whole of the structural work was designed by the constructional engineers, Messrs. A. D. Dawnay and Sons, Ltd., who carried out the manufacture and erection in a very expeditious manner.



STEELWORK OF TURBINE MANUFACTURING WORKSHOP, LOUGHBOROUGH.
A. J. WOOD, [A.R.I B.A., ARCHITECT

Picture Exhibitions

The National Portrait Society.

Orpen casts a glamour of brilliance over the National Portrait Society's exhibition at the Grafton Galleries, though his portraits of Peace Conference delegates, notwithstanding their slick perfection and the superb confidence and vigour of their draughtsmanship, fill one with bitter emotions. The portrait of Lloyd George is a terrific caricature, and one admires that because it is amusing, and seems to represent the artist's private conception of the man as a volatile, cat-like creature —the cat's-eye green background encouraging the suggestion. But Orpen's portraits of Hughes, Señor Da Costa, and the Marchioness of Crewe, look like nothing so much as barbers' blocks; they have the same glassy stare, vacancy of expression, and wax-like beauty. They remind one of those women in "The Heroes of Asgard," who had beautiful, perpetually smiling faces, but no backs to their heads. Yet the painter of these portraits created the lovely "Angler" which hangs in the Tate.

"The Marchioness of Crewe" hangs beside Whistler's "Arrangement in White and Black," providing a foil for a picture which is a real work of art. In this painting, apart from the technique of the thing—apart from the glowing colour of the black dress and the richness of the white fur—it is obvious that the artist has conceived a Being, not a finicking, grimacing Face. The face is not tortured and distorted for the sake of some st ling superficial effect, but expresse the most exquisite way the characte the mind behind it, and the actual cur of thought active in that brain at moment of the artist's inspiratio passing phase which he has arrested crystallized. This ability to conceive subject of his portrait as a human b and to infuse the mystery of human into the lines of his drawing, di guishes Whistler from almost every painter represented here except Augu John.

John makes nearly everything else specious and banal. He is altogethe much for McEvoy's "Mrs. Benja Guinness," which appears hopel vulgar in such high company. Al pictures are windows through whi glimpse may be gained of a pec world, recognized as existent in dre but never before projected by the scious mind. One's senses react t clash and counter-play of personalit the incredible miracle of conscious its oppression and mysterious, caus power. His portrait "Percy" is typ At first it repels because it appears torted and mannered, yet the pow there, obscure, but irresistible. "Fr Macnamara," too, appears rather ob at first sight, but reveals curious su ties, especially about the mouth temple. This has the quality of a picture.

McEvoy contributes a good dea blue hair, and a good many blue f but atones for all this unnatural brill by his "Miss Teddie Gerrard," whi full of character, and by a pretty por "Miss Janis Guinness," the face of w is delicately modelled, though the of the picture is rather sentime There are a good many interesting th There is quite a dramatic little pi called "The Watchman," by Da Baring, hidden away in a corner o Large Gallery; there is a merc Degas—Louise—and a "Plumber's mily" by Jacques Emile Blanche, in the middle of the Peace Confe aristocrats. "Miss Katherine Smith, F. Katherine Mayer, and "Paul," Annie L. Swynnerton, make an int tual appeal which grows with intim while Domergue has effective po Kennington some typical heads, Dulac, amongst other things, a fasc ing caricature of George Moore, Last Victorian."

The bad things are much easie pick out than the good. We will co ourselves, therefore, with indicating the worst canvas in the exhibition, w is a portrait of "His Eminence Car Bourne," by Sir John Lavery.

H. DE

American Architecture Exhibitio

Early this year the American Inst of Architects sent over to the old Sal Paris a beautiful collection of dra and photographs illustrating the ach ments of American architecture i nineteenth and twentieth centuries. exhibition aroused the greatest int in Paris, and at the closing of the the organizers accepted the invit of the Royal Institute to send it London. No such complete and r sentative display of American work ever been seen in this country. exhibition will be open shortly.

The Utility of Concrete*

By S. BYLANDER

NCRETE, or artificial stone, is a building material of immense possibilities for structural purposes. It e easily formed and cast to the d shape without joints. It can be very strong if well manufactured, ularly when steel reinforcement is ided. It permits of great flexi- in design and purpose. Concrete able and reliable if suitably used, cannot compete with natural stone pearance, because of its depressing (which does not improve with age) ts uninteresting surface.

nforced concrete permits of shallow and cantilever construction in place e deep and more expensive stone, or plain concrete arch construcor buildings. Concrete, being fireot-proof, is superior to wood for ural purposes. Except in wares, factories, and like buildings, conis usually faced with stone, marble, r, wood, or other more pleasing ials for decorative finish.

is more lasting than unprotected when exposed to the atmosphere; hen forming members of a structhey must be thicker or heavier than rendering it more applicable to t of the solidity desired for architeceffect. It is also more fire-resisting nprotected steel or even stone.

the warehouse class of buildings te is often good enough for external nternal finish. If the concrete is nd uniformly executed with splayed lleted angles it is superior to plaster vice.

Rough Concrete.

crete made without special study ttention may be referred to as rough linary concrete, as used for foundafilling voids, and making retaining where small stresses occur, and when weight, and spread are the essen- For rough concrete the coarse ial and sand are usually not separbut measured together and called aggregate, the proportion specified 1:4, or 1:6, etc., meaning one part ment and four or six parts of mixed gate, such as Thames ballast, pit avel, etc.

ther experience in the use of conparticularly when reinforced, has ced us that it pays to give more ion to the making of concrete, and oncrete can be relied upon to take ompressive stresses, and that fairly m ultimate crushing strength is able.

nforced concrete has in recent years e very popular, and is often spoken a separate material from concrete. er to consider concrete as a strucmaterial irrespective of whether or reinforced, as the addition of ars does not change the nature of ncrete. Steel bars are added to then parts of the structure, parly where tension occurs, but not to up for a deficiency in the quality of ncrete itself.

*Paper read before the Liverpool Architectural on Oct. 18, the President, Mr. Gilbert W. Fraser, A., in the chair.

Standard Concrete.

Gradually specialists adopted the mix 1:2:4 as a standard, and I will refer to this kind of concrete as "Structural Standard Concrete," in which not only the mix is standardized, but also the composite materials and methods of manufacture. A generally accepted standard has the advantage of easier working and greater confidence in result. The fundamental reason why design and construction of concrete must necessarily be attended to by experts is that the making of concrete structures is essentially a manufacturing operation and is very difficult because the work is carried out on the site instead of at a factory where working conditions would be more favourable for uniform and reliable manufacture. Standardization for concrete is equally important for structural steelwork, if not more so. Structural steel can easily be obtained of uniform and reliable quality, and I believe that in the near future, by the use of standard materials and methods, and the employment of specialist engineers, concrete can also be made of reliable and uniform quality, although not to the same extent as steel.

Special Concrete.

Richer or leaner mixtures of concrete are obtained by varying the proportion of cement. Rich mix, such as 1:1:2, 1:1½:3, is used when great strength is required, for tanks, etc. Medium mixture, say, 1:2½:5, is suitable for walls and construction of great thickness. Lean mixture, say, 1:3:6, is suitable for mass concrete, machine foundations, heavy retaining walls, etc. The proportion of cement, sand, and coarse material is usually given as compared with one part of cement, because when proportioning the batch it is convenient to use a bag of cement which contains a definite weight. The volume of sand and coarse material for the batch is adjusted to suit. It will be realized that in the mixtures 1:1:2, 1:1½:3, 1:2:4, 1:2½:5, and 1:3:6, the proportion between sand and coarse material is the same, namely, the volume of sand is half that of coarse material, and only the proportion of the cement is varied. A more simple way of expressing the mixture is 1:2:4, $1\frac{1}{10}$:2:4, $1\frac{2}{10}$:2:4. In these mixtures the proportion of cement differs by 10 per cent, and the richness of the mix is more easily understood. Special-mix concrete may be required for special work such as precast work.

Kinds of Concrete.

Concrete may be reasonably divided in four classes as follows:—

(a) Mass concrete: work in mass, heavy walls and foundations.

(b) Structural plain concrete: parts of framed structures in concrete without reinforcement. Piers, walls, bases, beds, etc.

(c) Structural reinforced concrete: framed structures having members of relatively small sizes and subjected mostly to transverse loads, such as floor-slabs, beams, cantilevers, etc. (whole structure may be in reinforced concrete).

(d) Other concrete work, including precast work. Most concrete work is made "in situ"; the amount manufactured in "pre-cast" concrete is small.

Cement.

Cement should be specified "standard slow setting," and samples taken and tested. Portland cement only should be used.

Sand.

Unless obtained from known source and previously tested, the sand should be tested as well as the cement. A small amount of vegetable matter makes sand unsuitable. Fine sand makes a weaker concrete than graded coarse sand. If fine sand must be used, then the proportion of cement must be increased. Whether the grains are round or angular does not very much affect the strength of the concrete. The grains of sand should be preferably graded from small to large, and must all pass a ¼ in. mesh.

Coarse Material.

Only hard material should be used, and of such size that the concrete may readily be placed in the corners of the moulds and between the reinforced concrete. For reinforced concrete ¾ in. maximum size is usual and 1 in. permissible. All must be retained on a ¼ in. mesh. Crusher-run gravel containing graded sizes, and not one size only, is desired. Broken stone, gravel, broken hard brick, are suitable materials. Soft stone should be avoided in important work. Caution must be used when crushed stone contains dust. Only a small amount of stone flour will materially reduce the strength of the concrete, but a very small proportion, if known and uniform, will not necessarily be cause for rejection. If fine and coarse aggregates are mixed, and must be used for reason of cost, the amount of material less than ¼ in. should be ascertained by screening, and proportionately less sand used when mixing. Gravel must be clean and not coated with dirt, as the coating will prevent the cement from adhering to the pebbles. Rounded coarse material is nearly equally acceptable as sharp angular crushed stone for reason of cost. The rounded pebbles require less cement; and the angular stone, while sometimes a little stronger, requires more cement and mortar to fill the voids on account of bridging.

Reinforcement.

All steel must be tested, particularly for bending. Steel must be accurately bent and placed to drawings, and properly secured against distortion while concreting.

The bond or grip between round bars and concrete is sufficient with proper embedment. Hooks at ends are desirable. Deformed bars in some cases may be used to secure greater bond.

High tensile and high carbon steel should not be calculated for higher working stress, as it may be brittle, though it may afford an advantage if of specially good quality. Steel bars will not rust if completely embedded in concrete of a medium wet consistency.

Voids.

Concrete is a mass of small stones or pebbles held together by cement mortar filling the voids between the pebbles. The percentage of voids in well-graded concrete is about 40 per cent., but in standard concrete 50 per cent. of mortar is provided. On account of bridging and imperfect placing of the pebbles an excess of mortar must be allowed. The mortar is intended to fill completely the voids between the pebbles, and the cement to fill the voids between the grains of sand.

There must be an excess of cement to fill the voids in the sand. Cement and sand mixed constitutes the mortar or cementing paste, and the strength of concrete depends for all practical purposes on the strength of the mortar—that is, the proportion of cement to sand.

The proportion of cement to the mixed aggregate is no definite indication of strength, which applies to rough concrete where in a 1 : 4 mix the sand is not measured separately, and where the richness of mortar may vary.

Standard 1 : 2 : 4 concrete should contain coarse material passing $\frac{3}{4}$ in. mesh and being retained on $\frac{1}{4}$ in. mesh, the sizes being graded from $\frac{3}{8}$ in. to $\frac{3}{4}$ in.

The best grading is such as will provide for small pebbles just filling the voids between the large ones. About one-third of the bulk should be small size (say, $\frac{5}{16}$ to $\frac{7}{16}$).

Concrete made from large-size material only is not good, and, if of the 1 : 2 : 4 mix, will not be solid, as the voids are excessive.

Mixing and Placing.

Proportions must be accurately measured, coarse material and sand separately. Mixing must be thorough, preferably in a machine mixer. Long mixing is an advantage; not less than twelve turns are required by the mixer, and twenty is not too much. A medium wet concrete is most desirable, as it requires less punning and will fill the mould and flow between the reinforcement more readily. For mass concrete less water may be used with advantage. Concrete made with flash (or very quick) setting cement must not be used. Concrete must be kept wet until it hardens. Construction joints in concrete must be made with care when tight work is required or where sheer-forces along the joint will occur, and when appearance is of value. Joints in concrete should be made at centre of span for slabs and beams, and formed with a board and concrete, not left with a rough slope.

Forms.

Forms must be sufficiently strong to take the pressure of the concrete and carry temporary loads. Nails in forms should be avoided as far as possible except for battens. Forms must be tight enough to retain the cement and avoid unsightly rough surfaces and pockets, caused by lost cement. Forms for important work should be left in place until the concrete rings hard and will not chip. Longer time must be allowe heavy members, but less time is pe sible for walls subjected to small str Caution must be taken in cold wea Retaining walls must not be subject pressure by the back filling until the crete is hard, unless braced.

Design.

Drawings must be complete and cl show the work, and be prepared experienced engineers. Tensile str and particularly diagonal tension negative bending moments, mus provided for. Small bars should be in preference to larger diameter where bond is essential. Size of col may be reduced by using richer mix more vertical reinforcement. Hoo is sometimes of questionable v Links or binding to pillars and ba compression must be provided to pre the longitudinal bars from buckling

Cost.

Cost of concrete is ascertained fro cost of materials used and cost of la for mixing, etc., both of which ca closely estimated. Cost of forms, ever, varies greatly, particularly la being dependent on design and sha members, height of stories, and surro ing conditions. The labour cost bending and placing reinforcement v with type or system of design ado but can be closely estimated.

Safety.

I am not afraid of using reinforced crete for important structures pro



WESTMINSTER SCHOOL WAR MEMORIAL: DETAIL OF MILITARY TROPHIES IN LOW RELIEF.
SIR ROBERT LORIMER, A.R.A., R.S.A ARCHITECT.

War Memorials. 22.—Commemorative Screen at the Entrance to Great School, Westminster

Sir Robert Lorimer, A.R.A., R.S.A., Architect



This memorial screen, which has just been unveiled by the Duke of Connaught, is of unvarnished oak, the windows above being filled with stained glass. The medallion of St. George is painted. The tympana above the doorways contain crushes of modern military trophies carved in low relief.

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ork is under the control of a person competent to design and supervise ork from start to finish. Not until wner realizes the economic advan- of employing competent men to vise the work will the use of rein- d concrete prove to be a complete ss. The owner usually entrusts the of the work to the architect, and is d by his advice. The architect d employ a competent specialist eer to design and supervise the work ive instructions for his work and t responsibility. The specialist eer in turn must, with discretion, mend to the architect for employ- a suitable contractor and a compe- inspector. It is a waste of money ource of danger to vary from the principle, which through hard ience and many failures is getting and more accepted.

not believe in the method of getting ign of reinforced concrete from one nd handing this design to a contrac- or carrying out without control. lesigner should be responsible for vision as well, and see that the work ried out on the lines of the assump- which he made in preparing the n.

(*To be continued.*)

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ieties and Institutions

ttingham and Derby Architectural Society.

Arthur Eaton, M.S.A., of Derby, in esidential address to the Notting- and Derby Architectural Society, architects to support the scheme corporating all societies with the .A., and to assist in a scheme of ation for the members of the pro- n. Dealing with the building in- he said that he believed the pro- for a reduction in wages based upon duction in the cost of living would r or later be agreed to. Increased t in the building industry was not nly requisite necessary to reduce but it would do something. It certainly increase the volume of and do much to remove that fear employment which our operatives o have. Moreover, what was of the st importance to the operatives, it help to maintain a higher wage than otherwise be possible. In his n some system of payment by , or bonus on increased efforts, must eed to, being based upon a guaran- minimum wage. He could not tand the reluctance of the opera- o agree to some system of this kind, would provide a living wage to a workman, and an incentive to a r or more ambitious one. Such als, however, have not found , but he was not without hope that would be a change of opinion st the leaders of the operatives would be more in harmony with rit of the operatives themselves.

preparation of any bonus system, d, must be a matter for national ent by employers and operatives, itable safeguards must be arranged vent men being exploited by un- lous employers. If some system above lines could be formulated ally and adopted, he thought it would help the revival of the building industry, and bring prices down to a lower stable basis, when architects might reasonably expect to be instructed to get out those works which have already been prepared on paper, and proceed to get them erected in a concrete form. Further, it would give the building public a confidence that prices were stable, and warrant them in proceeding with much-anticipated work which was being held back at the present time.

Leeds and West Yorkshire Architectural Society.

The winter session of the Leeds and West Yorkshire Architectural Society was opened when Mr. Nathaniel Lloyd delivered a lecture on "Examples of Where, What, and How in Architecture." These headings, he said, covered everything that was comprised in good architecture, for if they selected the right site, placed their building upon it to the best advantage, rightly chose their materials, and made the best possible use of them, they must achieve success. Just as a tradesman had his stock of goods, so an architect had his stock of methods. Some of these, like the Orders, had been handed down, and some had been found out: but, unfortunately, during the last hundred years many wrong ideas and methods had been picked up, with the result that architecture suffered. The lecturer laid stress on the importance of proportion in the broadest sense of the word. Though everybody agreed, yet an examination of works actually executed showed that proportion had been ignored. Attention should also be paid to details, for it is the little things that matter. The chief points of the lecture were illustrated by means of fifty lantern slides, some showing the wrong way as well as the right way of architecture, and others the less generally known details which were better than the methods employed ordinarily. Mr. J. C. Proctor, President of the Society, presided.

Architectural Association of Ireland.

Mr. J. J. Robinson, in returning thanks for his election as President of the Architectural Association of Ireland at the opening of the twenty-fifth annual session of the association, said that this was the jubilee year of the association. They stood now, they all hoped, at the beginning of a new era, which would call for the production of an architecture worthy of the age. "Are we, the architects of Ireland," he continued, "fit for the task? Generally speaking, from what I know of the work that is being done, and what I have seen of the efforts of our contemporaries, I believe we will acquit ourselves well, and that we are capable of producing work which will stand comparison with the architecture of any modern country."

He believed they could produce a living style characteristic of the age, adequate for its requirements, and expressive of the attributes of the country. The future of the art was in the hands of the younger men, and it was up to them to see that they were fit for the task and that they got a better start than the older generation. Any system of architectural education that would be set up should be evolutionary, and their aim should be gradually to re-mould present arrangements.

Gloucestershire Architectural Association.

Mr. H. Chalton Bradshaw, A.R.I.B.A., head master of the Royal West of England School of Architecture, Bristol, in delivering a lecture on "The Study of Architectural History" before the Gloucestershire Architectural Association, remarked upon the importance when undertaking a study of architecture of making a start from a definite standpoint and directing one's aims to a single end. He said that architecture in these later days had strayed rather easily from the narrow paths of art into the less difficult ways of financial enterprise. For the student it was rather difficult from the great mass of architecture which they saw about them to-day to know exactly where he stood in his studies. The essence and justification of the serious art of building was in danger of being overlooked by the great complication, the great difference, there was in styles and methods of building at the present time. Therefore it was always profitable for those who were interested, not only in architectural education, but in the study of architecture, to hark back to the earlier point of view.

Historical buildings were not always dissociated from present-day problems. In studying the history of architecture it would be found that even the Romans were in their day faced with very much the same problems as those which confronted architects in these days in the matter of building. There were certain elementary problems which would present themselves again and again, and the manner in which they were overcome in classical times could never fail to be of interest to students of architecture who were now facing similar problems. The definite standpoint in reviewing all historical buildings was to see how far the conditions which the architects of the past had to satisfy were met by the actual buildings under review. The day of scrapbooks in architecture was past; architecture was a very much more serious matter than the serving up of fashion in scraps.

By the aid of a series of interesting lantern slides the lecturer proceeded to show how a study of architecture might afford an index to the history of a country, quite as much in many respects as the written account. Mr. Bradshaw pointed to the importance of character in architecture, and, in emphasizing simplicity as an essential feature, remarked that unity in design contributed vastly to the lasting qualities of the best architecture.

Composition and proportion was another point upon which stress was laid. On the question of restraint in architecture Mr. Bradshaw was bound to say that we were in this country very rich in many ways in examples of how to leave out that which very often spoiled a building. The influence of materials on style was also touched upon, and the importance of a judicious selection, whether natural or artificial, was enforced. The selection of local materials when suitable went a long way to enhance the beauty of architecture.

The Rev. Dr. West, F.R.I.B.A., proposed, and Mr. Arthur W. Sisson seconded, a vote of thanks to the lecturer. Mr. S. H. Healing, President of the Association, occupied the chair.

Correspondence

How to Revive Public Confidence in Building

To the Editors of THE ARCHITECTS' JOURNAL.

SIRS,—I have read with interest the letters in your last issue under the above heading. I am much in accord with the views expressed by Mr. William Woodward, but in my opinion one of the chief reasons why the public are not embarking on building schemes is the present attitude of the banks.

A client of mine who has purchased a freehold property in the City, giving some £12,000 for it, is desirous of rebuilding, and would lay out about £35,000 on the new building. He recently approached his bankers, proposing that they should assist him in the course of the building with advances in stages up to the completion with a sum of £20,000 on the whole freehold property, as was done freely before the war with substantial clients. My client was informed that the advance could not be made as banks could only advance money on liquid securities.

The fact that the banks have come to this decision is unfortunate at the present time, as buildings such as I have referred to would help to solve the unemployed question, and I have little doubt that many people are in the same position as my client—ready to proceed with building works if they could only get the necessary finance, and thereby absorb a lot of the labour now seeking employment.

I notice some of your correspondents lay great stress on the business of producing and selling abroad, which of course is undeniable; but since this is not the whole 100 per cent. of the work of production, I am inclined to think 33 per cent. at least of the production is of home necessities, and when we produce houses and other buildings we are consolidating our labour and turning unremunerative clay, wood, and ores into a standing earning lump of wealth in itself, and a lasting source of employment. Therefore I do not consider building an unremunerative investment.

Yours faithfully,
EUGENE BEAUMONT, M.S.A.

To the Editors of THE ARCHITECTS' JOURNAL.

SIRS,—The discussion on your leader of September 28 tends to pivot on the grievance of lost confidence, and to relegate the need for a tangible remedy to the background. Those of your readers who have read the article in question, together with the subsequent correspondence, must feel that a meeting should be arranged as soon as possible between the leading representatives of the architectural and surveying professions and of the building trades, including, of course, manufacturers. Such a meeting held on neutral ground and accessible to the public would be productive of excellent results, and as the question is of vital importance at the present juncture no time should be lost. Therefore it would be as well for all those who are concerned in the problem to appeal to the Presidents of the R.I.B.A. and the Society of Architects, etc., to use their influence in securing this essential airing of views whereby the groundwork of some practical agreement may be arrived at. As your correspondents have maintained all along, this can only be done by sacrifice in some way or other and mutual co-operation.

Mr. Hill, representing a prominent firm of contractors, has made the invitation through the press; now it remains for others to respond. Your leader and the following correspondence have been submitted to the President of the R.I.B.A. for his attention, and with an appeal for that body to take the initiative.

The policy of waiting leads nowhere but to further disintegration and unemployment, to say nothing of still further distress.

Incidentally, not only is the restoration of confidence in building necessary from a public point of view; the confidence of professional men in their respective representative organizations should be maintained, and those bodies would do well to remember that their members look to them more than ever for leadership at this present juncture.

NIEL MARTIN KAYE, A.R.I.B.A.

The Magasins du Printemps Fire

To the Editors of THE ARCHITECTS' JOURNAL.

SIRS,—In one of your recent numbers we read with interest a description of the fire at the Magasins du Printemps, in Paris, sent you by Mr. H. Bartle Cox, A.R.I.B.A. In his article he made the following comment :—

> "Popular reports have been circulated that the reinforced concrete gave way more easily than the unprotected iron; but all this must be verified, and the composition of the reinforced concrete examined before making deductions."

As we are of opinion that, even if this rumour is absolutely unfounded, it may have a damaging effect on the well-established reputation of reinforced concrete as a fire-resisting material, we have thought it advisable immediately to make enquiries from some of our friends in Paris.

They have been fortunate enough to be able to have an interview with a well-known Paris engineer who has for many years acted in a consultative capacity to the Magasins du Printemps, and who is, therefore, in a very good position to know whether or not there was any reinforced concrete exposed to the action of the fire in this building. He has informed us, after investigating the matter, that there was no reinforced concrete in the portion of the building which was destroyed by fire, but that there was a small amount of reinforced concrete in one of the newest parts of the building near the Rue Charras, which has not been touched by fire.

In view of Mr. Bartle Cox's statement we trust that you will see your way to publish this letter.

Yours faithfully,
EDMOND COIGNET, LTD.
G. C. Workman, Managing Director.

The Parliament Build for Northern Irelan

To the Editors of THE ARCHITE JOURNAL.

SIRS,—On September 24 I forw to you a resolution passed by the Society of Architects on the above ject, which you were good enou publish in your paper. In the " Mail" for October 28 it was stated the Commissioner of Works has aske President of the R.I.B.A. to subm him a list of architects, from whi would be able to choose one to carr the work.

Notwithstanding the Commissi opinion, my Society still hold tha only way to obtain the best desig these buildings would be throug open competition. The Commiss claims there is not time to hold a petition, but where an expenditu £1,000,000 is involved we consid delay of a few months, which a com tion would necessarily take, woul time well spent.

Perhaps you would take this matt again in your paper and put it i strongest possible light.

Yours faithfully,
EDWIN R. KENNE
Hon. Secretary
Ulster Society of Archi
(*See Editorial comment in this iss*

Builders' Benevolen Institution

A great deal of interesting inform with regard to the activities of Builders' Benevolent Institution is in the seventy-fourth annual repo copy of which has just come to The Institution is supported by v tary contributions, and was establ in June 1847 for "granting temp relief and pensions to necessitous m who have been engaged in the bu trade, and their widows." Durin past year pensions were paid to a of £1,280 2s., and the Christma absorbed £220. The report give particulars of the rules and regulati the Institution, lists of pensioners, scribers and donors, and donation bequests of deceased governors. President is Mr. A. B. H. Colls, F.I. the trustees being Messrs. Jess Chessum, J.P.; Archie B. H. F.I.O.B.; Frederick John Dove, F.I. Frank May, J.P., F.I.O.B.; Th Francis Rider, M.V.O., F.I.O.B.; the the Stanley George Bird Memorial being Messrs. Dudley Bartlett, F.I. G. M. Burt, F.I.O.B.; and A. B. H. F.I.O.B. The Secretary is Mr. Rudderham, and the Collector Mr. Barlow, 59 Ridley Road, Forest Ga The offices of the Institution are Bedford Square, W.C. 1.

The President has issued an appe all members of the building and industries to subscribe to the Institu which is in need of funds to mee existing obligations to its pensioners so assist in carrying on the good wo rendering comparatively comfortab declining years of those master bui or their widows, who have met misfortune. The annual dinner Institution will be held on Novemb

Rot of Wood and Sanitation

sor Percy Groom, M.A., D.Sc., Professor of the Technology of ınd Fibres, Imperial College of and Technology, London, de- ı Chadwick Public Lecture on ɔt of Wood and Sanitation" at B.A. on Thursday last. Mr. J. F.R.I.B.A., Chadwick Trustee,

Professor Groom said that in ıtry "dry rot" was responsible 'eat wastage of timber out-of- mines, in ships, and buildings, ıt amount annually to millions of .terling. It had been calculated the U.S.A. if wood were ade- protected against decay the saving would be 7,000,000,000 ɛt of timber. Unless steps were prevent it the loss occasioned by in buildings would certainly in- ı this country, thanks to the g amount of sapwood used, and ɔf adequate seasoning, and of rotection against dampness.

ch in dry rot should serve to ght upon some of the prob- connection with human disease, r in relation to immunity. Fungi ays to be found in houses, but ain of these could cause serious Of these some worked in the of the wood and remained ıntil they fruited: others grew d outside the wood and caused ɔid decay, as they could emit e growths that spread over and walls and floors. Fungi causing produced countless infectious ndeed, one individual plant of t species, *Merulius lacrymans*, ı few minutes throw off a number to wreck the woodwork of all s in Great Britain. From about yard of surface of its active *ulius* ejected 500,000,000 spores nutes.

recise conditions in which the species of wood-attacking fungi ive differed so, that sanitary to be adopted in eradicating re not identical. Among the s essential to all were appro- pplies of air, water, and heat. ain species, including *Merulius*, ıfacture water at the expense of , and thus attack the driest of Other species were readily d by drying induced by proper n. Some of these fungi could wide range of timbers, others d on only one kind or a few ds.

nditions of infection and growth the same for one and the same ıngus. For instance, apparently s of *Merulius* would infect wood r it had been attacked by some cies of fungus. That fact pro- additional reason against the ion of slightly infected, even pparently sterilized, wood into ruction of houses.

ngi causing grave dry rot in re different from those attacking trees. The sources of infection were probably largely timber ilders' yards, possibly shallow s, and ships, and possibly the t on that and other questions nterests demanded research and subsequent legislation. The fungi responsible for dry rot could not directly cause disease as parasites in human beings. Those that manufactured water could render a house damp and thus tend to cause the occupants to suffer from diseases that are promoted by damp air.

The next Chadwick Public Lecture in London, "Dietetics and Public Health," will be given by Professor E. C. Van Leersum, M.D., Director of the Netherlands Institute of Nutrition, Amsterdam; Sir William J. Collins, Chairman of the Chadwick Trust, will preside, supported by Dr. W. R. Bisschop, hon. secretary of the Anglo-Batavian Society. The necessity of systematic propaganda in respect of the Diet of the People and the Work of the Dietitian will be discussed. Further particulars of Chadwick Public Lectures may be obtained of the secretary, Mrs. Aubrey Richardson, O.B.E., at the Offices of the Trust, 13 Great George Street, Westminster.

The Board of Architectural Education

The following gentlemen have been invited to serve as Advisory Members of the Board of Architectural Education :—

Mr. Ernest Newton, C.B.E. R.A.	Royal Academy
Mr. C. de Gruchy	Royal Academy Architectural School
Professor E. S. Prior, A.R.A.	Cambridge University
Professor Patrick Abercrombie	Liverpool University School of Architecture
Mr. G. Washington Browne ..	Edinburgh College of Art
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Mr. Adrian Berrington ..	Toronto University
Professor R. W. Cable ..	Bombay School of Art
Mr. L. Sylvester Sullivan ..	Society of Architects
Rev. Dr. Chilton, Mr. C. H. Greene	Conference of Head Masters of Public Schools

Publications Received

"The Volute in Architecture and Architectural Decoration." By Rexford Newcomb. Bulletin No. 121. Price 45 cents. net. Published by the University of Illinois, Urbana. European Agent, Chapman and Hall, Ltd., London.

"Architectural Hygiene. By Sir Banister Fletcher, F.R.I.B.A., F.S.I., and Major H. Phillips Fletcher, D.S.O., F.R.I.B.A., F.S.I., A.M.Inst.C.E. Fifth edition. Price 10s. 6d. net. Sir Isaac Pitman and Sons, Ltd., Parker Street, Kingsway, W.C. 2.

"Architectural Office Administration." By Francis Lorne, A.R.I.B.A. Price 5s. net. Technical Journals, Ltd., 27–29 Tothill Street, Westminster, S.W. 1.

"Blue Printing and Modern Plan Copying." By B. J. Hall, M.I.Mech.E. Price 6s. net. Sir Isaac Pitman and Sons, Ltd., Parker Street, Kingsway, W.C. 2.

Catalogue of Works by William De Morgan. Net price 1s. (post free 1s. 1½d.). Victoria and Albert Museum, South Kensington, S.W.7.

"Adquadratum": A Study of the Geometrical Bases of Classic and Mediæval Religious Architecture, with Special Reference to their Application in the Restoration of the Cathedral of Nidaros (Throndhjem), Norway. By Frederik Macody Lund. Two vols. Price £5 net. B. T. Batsford, Ltd., High Holborn, London.

Parliamentary Notes

BY OUR SPECIAL REPRESENTATIVE.

Ulster Parliament Buildings.

At question-time in the House of Commons, Mr. Reid, an Ulster Unionist, asked what arrangements had been made in connection with public buildings for the newly established Parliament of Northern Ireland, and what was the total outlay. Sir J. Gilmour, speaking for the First Commissioner of Works, replied: As the First Commissioner does not consider that in the present case an open competition would provide the best or most expeditious method of procedure, he has consulted the President of the Royal Institute of British Architects, who has submitted a list of British and Irish architects who could be suitably invited to undertake the erection of the necessary buildings. The First Commissioner is now considering the claims of the various architects concerned, and hopes to announce shortly which architect has been selected. It is impossible, at this stage, to make any estimate of the cost to the Exchequer.

Housing and the Slums.

Sir A. Mond, Minister of Health, stated that, in view of the necessity of concentrating on the production of new houses, comparatively few proposals for the demolition of slum areas had been submitted to the Ministry. Definite schemes had been received in respect of 19 areas, while in a number of other cases informal proposals had been discussed with local authorities. Four schemes had been confirmed, or confirmation proposed, of which one was the Brady Street scheme of the London County Council.

Accidents in the Building Industry.

Mr. Shortt, the Home Secretary, informed Mr. W. Thorne that a Committee of the Industrial Council for the Building Industry had been considering the question of the prevention of accidents in the industry, and had submitted to him proposals for a code of safety regulations, to be made under the Factory Act. He was in agreement with the Committee's proposals, and he was about to give effect to them by issuing them as draft regulations under the procedure laid down by section 79 of the Factory Act.

Unemployment Relief Works.

Sir R. Horne, Chancellor of the Exchequer, said that owing to the need for economy the Office of Works had been bound to confine its activities to essential services, with consequent reductions of staff. As their work was in the main connected with building, in which there was comparatively little unemployment, the effect on unemployment was small. With regard to unskilled labour a sum of £50,000 had been voted by Parliament for the execution of unemployment relief works in the Royal Parks, and that, it was hoped, would afford relief in the class of case where unemployment was greatest. That provision was in addition to the large sums which would be required for giving effect to the schemes now under consideration of the House. Necessary Government work, where it was of a class which would give work to unemployed men, was being expedited wherever it was feasible.

The Week's News

New Houses for Kingston.

The Ministry of Health has authorized the erection of twenty additional houses at Kingston-on-Thames.

Swimming Bath for Bellingham.

A proposal to proceed with a £10,000 scheme for the construction of an open-air swimming bath at Bellingham has been adopted by the Lewisham Borough Council.

£10,000 Thames-side Scheme.

Twickenham District Council propose to construct an embankment and to widen and improve the footpath on the river side of Marble Hill Park, at a cost of £10,000.

Projected Women's Club for London.

A syndicate has bought a large site at the corner of Queen Anne Street and Mansfield Street, W., to erect a women's health club, where swimming and Turkish baths will be provided.

New Chapel for Cambridge.

The new chapel given to Westminster College, Cambridge, by Sir William and Lady Noble, has been recently dedicated. The architects were the late Mr. H. T. Hare, F.R.I.B.A., and Mr. Bertram Lisle, A.R.I.B.A.

Proposed Fish Dock on the Tyne.

A proposal has been mooted at the South Shields Town Council for the establishment of a fish dock at Jarrow Slake. The project would bring new trade to the river, and would lead to developments in the ship-repairing industry.

York Craftsman's Success.

At the exhibition of painters' and decorators' work, held at Ardwick, Manchester, under the auspices of the Institute of British Decorators, Mr. G. Radford, of York, late of the School of Art, has been awarded a first prize for the Lancashire area.

Islington Town Hall Scheme.

Islington Borough Council are to consider the erection of a new town hall. The council some time ago approved a scheme involving an expenditure of £330,000, which was negatived by the London County Council, and the new scheme is estimated to cost £73,909.

New Manchester Lift Offices.

Messrs. Medway's Safety Lift Co., Ltd., of London, have just opened a new branch office at 131 Oxford Road, All Saints, Manchester (Tel. No. Central 1764), where they have placed a special staff of skilled engineers to deal with the erection, maintenance, and repairs of all kinds of electric and hydraulic lifts.

The Subsidy for Private Enterprise.

A housing conference is to be held in London early in December under the auspices of the London House Builders' Association. It is probable that the Government will be asked to extend the grant to the private builder in order to bridge over the period until an "economic" rent can be obtained.

Convent Site for Houses.

The demolition of the convent in Fulham Palace Road, Hammersmith, has been started; it is understood that the site has been acquired for the erection of industrial dwellings. Designed by Pugin, the Hammersmith Convent was built in 1841 as an asylum for penitent women; since its opening eight similar institutions have been established.

Ilfracombe Improvements.

The U.D.C. have adopted plans prepared by Messrs. Frank Matcham & Co., architects, for the extension and improvement of the Victoria Pavilion. The same firm have been asked to prepare lay-out plans of alterations to the Victoria Meadow, so that the grounds shall be in harmony with the building.

National Gallery Venetian Rooms.

Owing to the need for redecorating and re-arranging the Venetian Rooms of the National Gallery, the Venetian pictures may not be accessible till after the New Year. Many of the early Italian and Florentine pictures have also to be re-arranged, but it is hoped to effect this change in the course of the next few weeks.

A Correction.

With regard to the illustration of Aston Lane Schools, Birmingham, which appeared in our issue for October 26 in an advertisement issued by the British Reinforced Concrete Engineering Co., Ltd., we are asked to state that the name of the architect was incorrectly given. It should have read "Mr. H. T. Buckland, architect to the Education Committee, Birmingham."

Torbay Hospital.

Mr. H. Percy Adams has been consulted on the projected improvement of the hospital buildings, and three alternate schemes are suggested, involving respectively the expenditure of: (1) £100,000 in building an entirely new hospital on a better site; (2) £45,000, by which would be obtained an entire reorganization of the interior of the existing hospital, giving a total of 88 beds in a new building in the hospital garden on the opposite side of the road; (3) A considerably less sum, which might be sufficient to cover certain improvements to the present building.

Engineering Scholarship Awarded.

The first award of the "Archibald Dawnay Scholarship in Civil Engineering" has been made by the London County Council to the student who, starting at an elementary school, went on to a secondary school by means of a county scholarship. Moneys bequeathed by Sir Archibald Dawnay to the Council provide the fund for the scholarship. For the present one scholarship will be awarded annually, tenable as a rule for three years at the Battersea Polytechnic, the Finsbury Technical College, or the Northampton Polytechnic. At present the scholarship is of the value of £11 a year. A condition of award is that the candidate's parents must be ordinarily resident in the County of London, and their income must not generally exceed £750 a year. The next award will be made about May, 1922.

Competition New

Canadian Battlefields Memor

The Governor-General in Cou approved the award made by Mr. P Mr. Darling, and Professor C. H in the Canadian Battlefields M Competition. The first place h given to Mr. Walter S. Allward, of Toronto, and the second plac F. Chapman Clemensha, archi Regina. Premiums of one t dollars each are awarded to the fo Messrs. Cecil Burgess (Ottawa), C Cobb (Toronto), Kenneth G. Rea real), and P. R. Wilson (Montreal) recommended that Mr. Allward' ment should be placed on Hill 62, a special road over one mile in l already in course of constructio monument, which greatly exceed and cost all the others, will be co a special monument to Canada's unknown dead. It was also mended that Mr. Clemensha's mo should be erected on the other se in France and Belgium. Profess Hobbs, M.A.,F.R.I.B.A., of Mac(versity, Montreal, acted as arch advisor throughout, and drew conditions of the competition.

Lisburn War Memorial.

The promoters of the Lisbu memorial competition have acce design of Mr. Henry C. Fehr, Avenue Studios, Fulham Road, S

Rothesay War Memorial.

The design of Messrs. Cha Tweedie and Sons, of 54 Frederic Edinburgh, has been accepted Rothesay War Memorial Commit

Grimsby Garden Layout.

Sketch designs for laying out surrounding Cenotaph. Prizes: and £2. Apply Mr. H. Whyatt, 170 Victoria Street, Grimsby. date November 26.

Horsham Hospital.

Hospital to accommodate a general patients, three or four patients, and nursing staff. Appl Cotching, 17 London Road, Hor

[For list of other competitions previous issues].

Coming Events

Thursday, November 10.

King's College: Lecture, under pices of the Garden Cities an Planning Association, on "Amst Past and Present," by Dr. H. P. 5.30 p.m.

Society of Architects: Council 3 p.m. Ordinary Meeting, 6 p.

Monday, November 14.

Surveyors' Institution: Pre Address by Mr. J. H. Sabins.

Wednesday, November 16

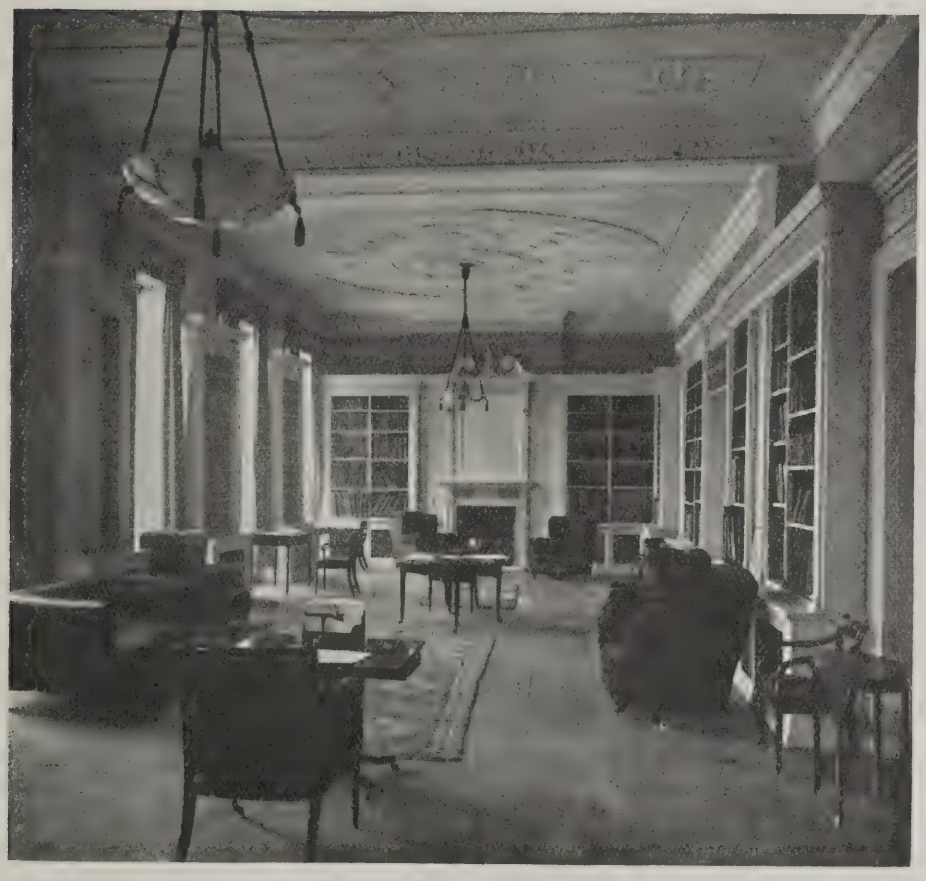
Industrial League and Counci Great Essential in Industry." F. S. Button.

Royal Society of Arts: Buildings in Cambridge and thei tecture." By Mr. H. T. Lyo Director of Design, Cambridge U School of Architecture. 4.30 p.m

esday, November 16, 1921. Vol. LIV. No. 1402

THE ARCHITECTS' JOURNAL & Architectural Engineer

With which is incorporated "The Builders' Journal"



THE ARCHITECTURAL ASSOCIATION MEMORIAL LIBRARY, BEDFORD SQUARE.
ROBERT ATKINSON, F.R.I.B.A. ARCHITECT
(*See Frontispiece*).

27-29 Tothill Street, Westminster, S.W.1.

Current Architecture. 123.—Chimneypiece in the Memorial Library of Architectural Association, Bedford Square

Robert Atkinson, F.R.I.B.A., Architect



The Memorial Library of the Architectural Association was officially opened yesterday. Its principal feature is the chimneypiece shown above, with a mural panel containing the names of the A.A. members who fell in the war. Mr. Robert Atkinson is to be congratulated upon a design of much delicacy and refinement. A general view of the library appears on the back of this page.

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The R.I.B.A. Presidential Address

HE opening meeting of a new session of the R.I.B.A. is always an assembly of notabilities. This year—on November 8—there were present, besides the usual large gathering of archi- many distinguished guests, such as the Earl of ord, Lord Charnwood, Lord Sumner, Sir Henry olt, Sir Anthony Hope Hawkins, and Professor J. W. ail. Their presence, it may be confidently assumed, zes yet further the revival of lay interest in architec- Whether this interest is spreading as some sky- rs are built, from the top downwards, or whether the nent is in the contrary direction (which we take leave bt), is a comparatively unimportant detail. What is l significance and of good augury is the fact that so distinguished personages thought it worth while to n assemblage of architects.

o of these distinguished guests addressed the meeting, ne observations of each speaker favoured the supposi- f a growing public interest in architecture. Lord er, in proposing a vote of thanks to Mr. Waterhouse s presidential address, actually made a direct and pathetic appeal to the Institute to do more "to the average stupid man, who was not always a fool, nuch delight in life was to be got from inhabiting y and well-proportioned buildings." Who could such a potent appeal to "come over and help us"? ly betokens the revival, in a new form, of the fervent nary spirit, ardent for conversion of the heathen. ent indeed, so far, was Lord Sumner's speech; but he went on to imply that the Institute should try to the average stupid man "how much advantage could tained in London by destroying buildings right and that the good ones could be seen, and how much life would be if the presidents of the great arts were uides and leaders," he was travelling a little beyond ief, and was, we fear, overrating the average stupid capacity to imbibe ideas, if not the competency of residents to impart them.

impossibility of getting people to see things in the f the higher truths is notorious, and is the great and to insurmountable obstacle to betterment. Theirs case of the distinguished proletarian from whose ly written biography a critic has inferred that the t thereof saw with extraordinary clearness as far as d of his not abnormally long nose, but beyond that ce all was obscure to him.

imilar extent is the mental outlook of the architect's . They see clearly enough what they want to see, othing beyond; what they ought to see is sadly d and out of focus. After all, it is not too much to e R.I.B.A. to suggest the more enlightening adjust- , and towards this end they are getting much encour- nt from such indications of the aspirations of the to a larger and clearer vision in architecture as those d in the speeches by Lord Sumner and Sir Henry olt. Sir Henry said, with characteristic generosity timent, that poetry and architecture both fulfil the unction in human life. Both glorify common clay. events; whether or not poetry is of the finer clay of the two, they are both of the same spirit; for, as Mr. Waterhouse had reminded us in the address for which Lord Sumner proposed and Sir Henry Newbolt seconded the vote of thanks, "there are realms where reason is not supreme"; and who would be so hardy as to deny that architecture is capable of exploring them? There was a further blending of "poetry and truth" in Sir Henry's declaration that a knowledge of architecture should be a cherished possession of every educated person, and that the best way to become a homogeneous nation is to acquire a knowledge of, a belief in, and a taste for the arts, with architecture as the art with which to make a beginning towards this reformation.

Such complete agreement between a lawyer and a poet in the recognition of architecture as an educative, refining, humanizing art, will make a forceful appeal to the public mind. The man in the street, pondering such weighty evidence, will be the less hard to convince that, after all, architecture is something more than putting up walls and a roof to defy the weather; he will be a step nearer to recognition that the Mistress Art has emotional and spiritual possibilities to which he has been too long sand-blind if not "high-gravel blind." Such speeches, from such speakers, will make him inquisitive about such an inspiring theme.

Mr. Waterhouse's presidential address was intensely interesting up to a certain point, beyond which it became rather disappointing. His graceful and generous appreciations of his precursors and of his surviving contemporaries, and his interesting bits of autobiography, were invested with considerable charm—of matter as well as manner. Proceeding from Mr. Waterhouse, they could not be otherwise. His luminous backward glance at the Gothic revival, and his terse analysis of its causes and consequences, certainly left his hearers wishing for more of the same sort; but, nevertheless, the address as a whole left them with a feeling of regret that it was hardly what at the present juncture they were on the tiptoe of expectation to hear. The address rather conveyed an impression—scarcely hardening, however, to suspicion—that the speaker had selected his themes with the express object of suppressing contentious issues for the time being, partly, maybe, because distinguished strangers were present—a whole galaxy of them—and partly because disclosure of the Council's mind on the vital issues—unification and registration—on which guidance is eagerly and even impatiently expected, would at the moment be premature, and as likely as not injurious to the cause. Still, it might have been worth while to introduce—however incongruously—into these charming personal reminiscences, and slight but delightful essays in architectural criticism, a few words of assurance that the President has these weighty matters very much on his mind, but preferred to say nothing further than that he could not be expected to deliver anything in the nature of an *ex cathedra* manifesto until the Council could put forward definite and positive proposals, based on the deliberations of the Joint Committee. It is because absolute silence on the point might be here and there misunderstood that we offer this independent and conjectural explanation of what might be regarded as a strange and serious omission from the Presidential Address.

Notes and Comments

Discovery of Leonardo Manuscripts

LEONARDO'S fascination never fails us. As he is to art pretty much what Shakespeare is to literature—a perennial spring of inspiration—any discovery of any genuine and indubitable scrap from his hand would be hailed with as much joy as a holograph from Shakespeare's pen, were it not that whereas specimens of Leonardo's handiwork exist in great number and variety, Shakespeare documents are exceedingly scanty, and of dubious authenticity even when they are not demonstrably spurious. There is, no doubt, a strong temptation to manufacture Leonardo "relics," but there is no reason to suspect that the "Codes" discovered by Professor Toni among the manuscripts in the Reggio Emilia library at Milan are otherwise than genuine, in substance at all events; but in the telegram from Milan it is not expressly stated whether the documents that have come to light are original Leonardo autographs, or whether they are merely contemporary copies. In either case they would be of great value and interest, since they seem to supply the deficiencies of the main and secondary "Codes" that Napoleon sent to Paris from Milan, parts of which were afterwards lost. The find, which is understood to include figures and diagrams, should shed further light on the unexampled genius of their author as painter, sculptor, architect, engineer, inventor, what not.

Equalization of Rates

In the brief debate (in the House of Lords) preceding the second reading on November 9 of the Local Authorities (Financial Provisions) Bill, the Earl of Onslow stated that, "the richer districts objected to the equalization of rates." No one in that august assembly would venture to ejaculate, "How strange!" nor would any noble lord hum the Sullivan air proclaiming that "They naturally objected." That the denizens of the richer districts will grumble at having to pay more is not by any means the conclusion of the whole matter. Other and more serious consequences may follow. Householders who have to pay more in rates will cut down their expenses on architects' fees and builders' bills, as well as in other directions. Thus we get yet another example of the vicious circle. Excessive poor-relief demands equalization of rates, and this readjustment necessitates further poor-relief by causing the richer districts to spend less on the employment of labour, and so to aggravate unemployment.

Old London Bridge

To invite Mr. W. D. Caröe to deliver a lecture on old London Bridge was one of the London Society's happy thoughts. Just now this subject has suddenly become topical in consequence of the unearthing of a ruined arch of a precursor of the present bridge. The London County Council and the Bridge House Trust have no funds with which to buy out the interests of the owners of the ruins, who want to clear them away from the site near Adelaide Place, on which they intend to build. In answer to a question asked by Sir Martin Conway in the House of Commons on November 8, Sir J. Gilmour said the Office of Works was anxious to preserve "the notable ruins of Old London Bridge, and had approached the owners, who, however, were not prepared to incur the very heavy expenditure involved. The First Commissioner, moreover, regretted that the funds at his disposal made it impossible to complete a purchase, while a Preservation Order would suspend building operations now in progress for any period up to eighteen months, during which time the Order would have to be confirmed by Parliament; and as the Department could not guarantee such confirmation, it was possible that any such action might not succeed in preserving the archway." Sir Martin Conway thereupon urged that it was the duty of the Bridge House Trust to preserve "this very important monument," and that a relatively small sum of money would cover the expense. Supposing it to be out of the question to leave the ruins where they are an obstru tion to building on one of the most valuable sites in Londo and in themselves neither useful nor ornamental, but mere of archæological interest, then possibly the ruins might conveyed to some London park, there to be preserved the gratification of curiosity; but a committee of architec should be asked to determine whether the removal is rea worth while; taking into special consideration the fact th transference to another site always robs an ancient stru ture of about four-fifths of its interest. Even Cleopatra Needle, for instance, subject of worldwide curiosity as it can hardly be excepted from this condemnation. T Thames Embankment is certainly not a right environme for an Egyptian obelisk; but we are not hinting that t ruined arch of old London Bridge should be substituted it, though certainly the arch would be more at home.

St. Martin's-in-the-Fields

"The most conspicuous church in London," St. Martin in-the-Fields, alongside Trafalgar Square, will not ha celebrated in vain its bicentenary if the copious notices the event that have appeared in the lay Press do but wh the public appetite for information about buildings. Ma Londoners read nothing but the newspapers, which w now have conveyed to them for the first time the inform tion that James Gibbs was the name of the architect; th a bust of him by Rysbrach stands just inside the no church he was commissioned to build after the passage the Act of Parliament of 1720 authorizing the work; th King George I was its first churchwarden (apparently t only king who ever assumed that office); that Fran Bacon, Charles II, and Hampden were christened the that Nell Gwynne, Fairfax, Roubiliac, Rose the garde who laid out St. James's Park, and Thomas Chippenda are among the celebrities buried there. More profita than all these mere records will be the more attent glance that the passer-by will be induced to give t church itself. Some, realizing for the first time (beca the newspaper tells them so) that the church is actua worth looking at, and has, perhaps, the noblest tower London, may even be tempted to go inside, for the vi is a firm believer in "the ever-open door."

Tube Extensions and Danger to Building

The projected six-million-pound "tube" scheme is admirable essay in reproductive labour. No doubt capital invested in it will yield a handsome profit, althou the promoters are not to have the power to stave omnibus competition. That highly contentious issue n not be discussed here. Architects and town planners more closely concerned with the effects that these extens additions to London's travelling facilities will have on building interests that will certainly be affected by th underground burrowings. Even though they travel at great a depth from the surface, the tube trains are innocent of vibration that has been known to affect v seriously the buildings within reach of it; but vibratio less deadly and less subtle than the effects of altering character of the earth by boring through it and drain away moisture from it. It is comparatively easy to meas and counteract or provide against the effects of vibrati but the results of draining away moisture, and of divert underground streams, cannot be foretold exactly. area and the loads they will affect, and the irregu and uncertain ways in which they may affect them, matters of actual and more or less painful experie They should form the subject of exhaustive inquiry be the Bill is passed. Of course we entirely sympathize w every legitimate means of immediately providing remun tive work for the unemployed; but we are, neverthel anxious that the relief shall come without undue risk the buildings above the lines.

ilding at Cost Price: Views of Leading Contractors

the course of the correspondence on "How to Revive Public Confidence in Building," which has been appearing in our columns for the past few weeks, a correspondent made the suggestion that the building industry might be restored to full working activity if ng contractors would offer to undertake work of a nature at cost price for a limited time. The adoption of this temporary expedient, it was urged, would produce an excellent response, with the result that there would all in prices and more work, with a gradual restoring fidence.

nifestly work on this basis would only be undertaken patriotic motives, for it would mean a considerable ary sacrifice to building contractors. But such ce would be justified if it had the effect of restoring tality of the building industry and of providing work e great number of unemployed building operatives. a view to finding out the attitude of the trade towards onstructive proposal, we addressed a questionnaire number of representative firms of building contrac- the following terms :—

ou have probably seen the controversy in the pages of OURNAL on 'How to Revive Public Confidence in ng,' which originated with a prominent firm of build- ntractors.

ne idea has been to discover some means of overcoming sastrous inactivity which threatens the whole build- ndustry—architect, contractor, and manufacturer Unfortunately, as you know, the conviction is pread that builders have formed a ring, and are g up prices artificially, and the natural result is that hose who have actually had designs prepared by their ects decline to build until prices come down.

suggestion has been put forward that contractors of vledged standing and reputation should offer to out some building operations of a utility nature at ice for a time.

suggestion such as this, however, can have no prac- esult unless it is brought to a definite issue, and we o ask you, as we are asking a number of the leading ctors of London, if you will be willing to accept such estion and carry out certain contracts for a time at ice.

e basis to be: Quantities to be supplied and price with the client's surveyor—the builder taking risks agreed price. Any saving (after allowing 5 per cent. ablishment charges and use of all plant excepting nical plant) to be credited to client; builder's cost to ited by client's surveyor.

r intention is to publish this letter in the JOURNAL at liest possible date, with the names of the contractors ve accepted the suggestion.

shall be pleased also to publish any letter you may specting this suggestion, should you desire to con- to the discussion."

his letter we have received a number of replies, some h we reproduce below. Others will be published in ient issues.

John Greenwood & Co.

rs. John Greenwood & Co., Ltd., of London Bridge, "We are favourably impressed with the idea of to architects and the outside public that building tors are willing to undertake work for a reasonable The only point that causes us to demur at your ion is that we should not, in justice to ourselves, undertake to carry out work at a cost price plus 5 per cent. for establishment charges, because 5 per cent. does not cover the establishment charges of any reputable firm in London at the present time, and therefore if we agreed we should be carrying out the work at a loss.

"We believe that 5 per cent. would about represent the establishment charges of such a firm previous to the war, but now the majority of the items included in these charges, including salaries, gas, electric light, rents, and rates, have doubled, or more than doubled, and consequently at the present time the establishment charges would work out at nearer 10 per cent. than 5 per cent.

"Of course, these percentages would gradually be reduced in the event of further reductions in prices all round, which everyone hopes will ensue. Under these circumstances might we venture to suggest that the establishment charges should be $7\frac{1}{2}$ per cent., although even that would not cover our establishment charges for last year or this?"

F. and H. F. Higgs

Messrs. F. and H. F. Higgs, Ltd., of Herne Hill, write: "It seems to us that the proposition contained in your letter is not a business one, and we do not think any self-respecting client would wish for a builder to work for him without any remuneration. We should be quite prepared, under the circumstances of the day, to work for a profit on the basis of the suggestions as to account keeping, etc., of 5 per cent. only, and we think this is a better idea than the one you have set out."

Leslie & Co.

Messrs. Leslie & Co., Ltd., of Kensington Square, write: "To take on a contract at the 5 per cent. you suggest would be carrying out the work at considerably under cost price. We are carrying out a contract at the present time at 5 per cent. for overhead charges and 5 per cent. for use and waste of plant; this is practically at the P.C. price and gives us no profit. Under the circumstances, we are willing to take on another contract on these terms."

F. G. Minter

Mr. F. G. Minter, of Putney, writes: "I am quite in sympathy with the suggestion, and think it an excellent idea at the present time. Personally, I am quite willing to take my share of the work on these lines. If, as you suggest, the general public think there is such a thing in the nature of a ring or profiteering going on in the building trades, then it is quite time they were disabused.

"I trust the suggestion put forward will create the necessary confidence amongst building owners to go ahead at once with any schemes they may have under consideration, and so take advantage of this exceptional offer in abnormal times. Personally, I think the results as regards cost will be very satisfactory, provided the right firms are brought in."

Perry & Co.

Messrs. Perry & Co. (Bow), Ltd., write: "As far as we can see, the suggestion you make would most certainly have the opposite effect to which you intend, and, futhermore, a perusal of the list of tenders for any given job at the present time will satisfy any public body, or indeed any clients, that there must be a very considerable number of builders who are already carrying out contracts at cost price, quite apart from the suggestion you put forward. You ask us our opinion, and we really must say we do not think any good would be achieved by adopting the method you propose—in fact, quite the reverse, we should think."

The R.I.B.A. Presidential Address*

By PAUL WATERHOUSE, M.A., P.R.I.B.A.

THE great and good Earl de Grey was, as the *Kalendar* and history will tell you, the first President of the Institute. He was a statesman who in his time played many parts, and a man who was so willing to give to our Body the prestige of his name and the help of his personality that he held the presidential office to our great benefit and to his own honour for no less than a quarter of a century.

That is one reason why, gentlemen, though the Institute is 87 years of age, I have only had 27 predecessors in office. The other reason is that though two or sometimes three years have been the normal spell of service, Sir William Tite alone of all the line was persuaded to come back to the chair for a second period of captivity after four years of freedom. But in those days Tite was no longer an architect—he had retired; he retired at about 55 years of age; and his energies outside the Institute were devoted as a Bank Director to Banking, and as a Member of Parliament to thwarting the Gothic tendencies of Sir Gilbert Scott.

Predecessors in the Chair

I do not propose to give here a history of my 27 forerunners. Out of the whole number I have personally known 17, and there is no reason in the nature of chronology why I should not have known by sight several more. In fact, there are architects in our midst, men of still active energy, who were born before the first of our Presidents died. It is perhaps a curious fact that while my name is the twenty-eighth on the list my father's is the fourteenth.

It is a happy and pleasant thought that out of my 27 predecessors no fewer than eight are still very much alive, and among them I venture to reckon—if they will allow me to say so—some of my very best friends. Our past Presidents form, though we may not always recognize the fact, a kind of House of Lords in their relationship to the Council. No one but a President, or one who has been closely associated with the duties of this chair, can know what the temporary chief of our brotherhood here owes to the fact that he can lean at times of difficulty on the strong support of those good men and true who have been through the career before him. I give here no hint of dependence. A President must fight his own battles, or, if happily there are no battles, must at least steer his own course; but the post is one of a certain isolation, and the sense that there is at hand among a body of tried friends sympathy, counsel, and advice, is a boon which no sound President can wisely disregard.

Our procedure affords, to my mind, too little opportunity for the free acknowledgment of certain past services. I want, with your leave, to make such an opportunity for myself by saying a word about one or two friends of mine and of yours whose modesty will resent every word I say.

No one will ever adequately say or perhaps know how much modern architecture as a profession owes to Sir Aston Webb. His singularly happy personality, welcome in all kinds of society, crowned as it has been by his appointment to the courtly post of President of the Academy, has won for all his colleagues an honour for which we may be always grateful. Sir Ernest George has emphasized as few others before or since the gentleness—I can think of no better or nobler word—of a true artist's life. Thos. Colcutt is a name that has meant to me virility of execution, strength, courage, and, not least, great friendliness. Of Stokes in his day we knew the force and fire. If fire and force have in later years been dimmed by untimely ill-health we must never forget that it was his Atlas back that bore the weight of the new birth of the Architectural Association. I think with pride of the fact that I sat at his (literally) round table in Storey's Gate in the days when he chose to attribute to the help of others the great educational movement of which he himself was perhaps the real mainspring.

I have mixed these metaphors, but they are better for the mixing.

Sir Reginald Blomfield, an old personal friend, has shown, as few modern architects have shown, how the literary and historical career can be successfully linked with the practical and creative. We owe him much for this, for in the first place he has given the lie to the theory that such a combination is impossible; and secondly he has done honour to our Institute by the respect in which his written words are so widely held.

Lastly, among living men I come to Ernest Newton and John William Simpson.

We tried at the end of the war to tell Newton on a little script of parchment what we thought of his work as President during the terrible subversion of our civilization that our world went through. I hope it will always be remembered of Newton that a man whose happiness consists, I believe, in the creation of some of the tenderest and most tranquil of domestic architecture said to himself, "Here is an exceptional and perhaps uncongenial job ready for me to do. It is a call. I will answer it."

Some of us know with what tact and grace, but at the same time with what infinite labour, and, I suppose, fatigue, he laid hold of and carried through that heavy task.

John William Simpson has made my own task an extremely difficult one. I was going to say that he was a born chairman, which indeed he is; but as he can also be described as a born administrator and a born after-dinner speaker as well as a born architect and a born writer of humorous letters, I am in danger of calling up by my language a rather strange portrait of the infant Simpson in his cradle. Let it suffice to say that his rule of the Institute—I don't hesitate to use the word "rule"—was to my mind a very masterly exhibition of a range of talents which not by any means every good architect possesses. His time was a difficult time, and he surmounted his difficulties, facing odds of ill-health with remarkable pluck, and with a skill which sets his successor one of those exar which though inspiring are also terrif

I cannot refrain here from a few sonal words. It is difficult for me t you, my friends, with what emoti occupy this chair. I can't pretend among strangers. I have been an tute man all my professional life, most of you know me in a more o personal way. Perhaps it is the ver of my being so entirely at home i room and among these familiar face gives me the sense of anxious res bility of which I venture to spea have felt ever since I came within of the chair that others would fill the better than myself, and I should ne any circumstances have done an to encourage my chances of gettin unless indeed ordinary work fo Institute can be interpreted as e aging these chances. But it was th wish of some of you that I shou nominated, and being elected I nee disguise from myself or from you th that to be your President is an h which no architect who believes brotherhood of Art can possibly d I live, as it happens, a life of whi duties are sometimes complicate numerous. My time-table is at like that of all busy and happy m outrage on the eight-hours day. such as I am, I am here to do as fa me lies the duties you have laid up sure that you will pardon the sho ings which are certain to reveal selves. With us every succeeding is by the very march of time more o than the past; but I have at least co and there is no courage like that man who feels sure that he has about him.

"The Prow of Progress

Among the happy phrases of tha happy writer St. Paul is the expr "We upon whom the ends of the are come." Those ends of the come upon every generation in tu would be unbearable were it not th very ends are after all only begi We picture ourselves seated on th prow of progress with a long wake But the prow *is* a prow, not a ste are cleaving the flashing waters o and so far from being at the last ex of history we should think of ou as in mid-voyage, or in a voyage le half begun. I said that I believe brotherhood of architects. I do lieve not only in the bond that un of us as contemporaries, but equ our joyful bondage to the men of th And having got so far, may I say believe just as much and just as in our union with the untold architectural toilers who are to Our duty towards them is amazin force.

Some of the aspects of moder tecture are so remarkable that with your leave, to devote the re minutes at my disposal to-night consideration of them.

We architects are set in the m critics; the whole world of in opinion—to say nothing of the

* Delivered at the R.I.B.A. on Monday, November 7.

elligent opinion—is perpetually on atch to offer us warning and advice. he most part we pay but little heed advice or the warning; we go on our we take our own course; we have vn courage, and if attacked we some- — but rarely — attempt a reply. are the lines of our defence, and what bulwark of justification? This is ous question. It deserves a serious r. Can we give it?

me say at once that the answer is a lt one to frame. Our confidence vain confidence, but on what is it ed?

enture to think that the very diffi- of our reply is based upon some ies of architecture which are none ess important because they are re. The obscurity is an obscurity nt in the nature of our art itself. f it remains an obscurity even to ves, that is no proof of ignorance, ss of inefficiency, on our part. It is of rather of the great depth and of a mystery which of itself en- architecture.

k at the matter historically, and facts will emerge.

The Gothic Revival

ne of us are old enough to have been l in our youth by the later breaths Gothic revival. It is easy to say t broke like dawn with a gleam of ity upon a world whose darkness etting tired of sham and pretence in ecture. Easy to say, but quite e. When shall we say that the revival began? Like most decent ectural movements (and it *was* a one) its beginnings were graduated; suppose it would be safe to say, ut worrying about sporadic sur- of early days, that it opened in 1825. great Gothic manifestation of the nt was St. Luke's, Chelsea. I do buse St. Luke's. I admire it (in the senses of the word "admire"), s far as truth and sincerity go I just as soon have its contemporary, ow destroyed Hanover Chapel by st Architect-President Cockerell.

course, my comparison is rather . It would be more just to the workers if I were to take a later per product of their movement. I come on to the Houses of Parliament, undation stone of which was laid 9, and set against it Barry's classic Enormously as I reverence the of Westminster, a giant's effort instead of being a giant's failure is a triumph. I cannot feel sure that hitecture it has a truer claim than orks of the same designer in his n and Italian moods.

fact is that the sincerity plea will n its own carry the Gothic revival eaven, and if by sincerity we mean on sense it is certain that sincerity eal criterion of art.

true that quite early in the Gothic eople began saying that the Gothic nent was the pathway of truth, and ts mission was the extirpation of ce. The penumbra of Ruskin was ing Ruskin's approach, but for say in these latter days that the was won—as far as it was won— e one style was righteousness and her deceitful sin is to misunder- not only the nature of Art, but in lar the nature of architecture.

The true strength of the Gothic revival lay in the fact that as it went on its way it eventually made architecture unconscious; by which I do not mean ignorant.

Its impetus was that of religion and romance, its strength was not that of archæology. The archæology of it was its nourishment in two senses only, the first being that without search into the facts of the past no modern architect can achieve taste, and the second that what we call archæology is after all a mere quarrying into the pit whence we were digged.

And this is one of the points I want leave to make to-night. We talk of archæological study on the part of an architect as if it were a fumbling among dry bones. It is nothing of the kind, unless indeed it take the form of a plunge into the archives of some alien civilization with which our race has no blood affinity.

But Western Europe is a small place, and its history during the Christian era is but a tiny span.

Do we realize, any of us, that if we were to invite our direct ancestors as far back as the reign of Augustus to an evening party we could get them all into less than a quarter of this room? If each of us were to follow the direct male line, inviting his father's father, his father, and so on, the whole company from the year nought to the year now would only be about sixty persons.

The Renaissance is looked upon as a great revulsion, but the men of the Quattrocento were only forty-two generations off the golden age of Rome, and we of to-day have only a score of ancestors between ourselves and that glorious century that saw the building of Salisbury Cathedral.

To-day history or archæology, or for that matter the simple study of still standing stones, takes the place of the traditions of the mediæval or premediæval workshop; and if we are accused of antiquarianism in our study, or of archaism in our practice, let us answer boldly that the trust of a patriot in the past of his race is no freak of archæology, but simply common piety in the Roman sense of the word. It is, in fact, respect for the traditions of our race.

I should like to point here to a product of the Gothic revival—a by-product, it is true—which made not for good but for evil. Up to the first quarter of last century every architect studied the classic rules. With the dawn of the Gothic fervour there came a sense that the old foundations were being loosened, and before men came to realize that the new mediævalism carried with it as great an obligation to type as the older classicism there broke out a sense—a perfectly reasonable sense—that so long as an architect exercised his taste he couldn't be acting amiss. With that sense came licence, and with licence a display of work, specially in our London streets between, let us say, 1850 and 1875, which while it remains unbroken or unburnt will be a reproach upon our country. I said it was reasonable to let taste be the criterion. It was. But there is no taste without knowledge, and I question if reason is in architecture a qualified judge. I am willing to be misunderstood if I say that there are realms where reason is not supreme. What is reason? I suppose it is civilization's substitute for instinct; and without instinct there is no Art.

But time advances. I have entered too big a subject. Rather than leave it with a ragged edge I will ask you to let me express the rest of the train of thought in separate sentences, begging you not to think from their form that I regard them as epigrams or aphorisms.

Archæology in architecture is not the refuge of exhausted imagination; rather is it the resource of a spirit of art which, seeking rest and finding none, returns home.

The past is the mother's milk of our growth.

The roots of architecture are as important as its branches, and are the conditioning causes of its true fruit and flowers.

While good manners are civilization's device for the smoothing of intercourse between contemporaries, tradition is civilization's device for the still more important intercourse between the men of old and ourselves, between ourselves and the men to come. Let us never be guilty of a breach in our link between the future and the past.

If evil communications corrupt good manners, evil manners make corrupt communications.

Finally, a last thought. It seems a far-fetched one, but if you will consider it, it goes to the very heart of the matter.

The most wonderful fact in modern architectural history is not the capture by America of classic architecture, but the capture by classic architecture of America.

Discussion

Lord Sumner, proposing a vote of thanks, said he owed the privilege to the fact that he had known the President for over forty years. Never during that time had he met anybody who didn't like him. There was a further bond between them, in that they were both born in the same city, the City of Manchester, a city made richer by two buildings which would for many generations adorn the name of Waterhouse. He would like to make an appeal to the Institute to do more than it did at present to teach the average stupid man, who was not always a fool, how much delight in life was to be got from inhabiting seemly and well-proportioned buildings, how much advantage could be obtained in London in destroying buildings right and left so that the good ones could be seen.

Sir Henry Newbolt, seconding, said that poetry and architecture both fulfilled the same function in human life. A knowledge of architecture should be a part of every educated person in this country. If we wished to be a homogeneous nation the best thing was to spread a knowledge of, a belief in, and taste for the arts, and they could not make a commencement with a better art than architecture.

Mr. Waterhouse replied briefly, and thanked all present very heartily for the kind way in which they had received his address.

An old Balliol man, Mr. Waterhouse must have appreciated the presence of several distinguished men of Balliol, among them being Lord Sumner, Lord Crawford, Lord Charnwood, Sir Henry Newbolt, Mr. A. B. Walkley, Sir Anthony Hope Hawkins, Professor J. W. MacKail, and others, whilst among the members of Mr. Waterhouse's own profession were Sir Aston Webb, P.R.A., Sir Reginald Blomfield, R.A., Sir John Burnet, A.R.A., and Mr. Ernest Newton, R.A.

Shell Corner, Kingsway

SHELL Corner—an imposing structure with an octagonal tower—comprises a fine block of three buildings at the lower end of Kingsway. These buildings have been designed by Messrs. Trehearne and Norman, architects, to balance "Empire House," the building erected from their designs at the opposite corner for the Air Ministry during the early stages of the war.

The newly completed buildings stand on an irregular site with an area of 9,386 ft. super, have a frontage to Kingsway and Aldwych of 122 ft. 3 in., and a floor area of 65,860 ft. super, exclusive of staircases, lavatories, landings, etc. The buildings, occupied respectively by the Shell-Mex Company, the Ingersoll Watch Company, and the British Thomson-Houston Company, are constructed under one roof, have well-lighted rooms, and each has a back entrance in Kean Street.

The façade is constructed of Portland stone, with the lower portion in granite, and the enrichments have been carved by Messrs. E. J. and A. T. Bradford. Notwithstanding the large amount of window space provided, the architects have secured an exterior of bold and massive appearance.

In the entrance hall the walls are faced with Sicilian marble and second statuary marble, and the floor is a pleasing composition of artificial stone and mosaic work. Opening into the staircase are four lifts placed side by side, and having a speed of 300 ft. per minute. The entrance gates and the wrought-iron grilles to these lifts have been executed to the design of the architects.

The floors are on the Kleine principle, carried on steel stanchions and girders, the height of the various floors being as follows: Basement, 12 ft. 0 in.; ground floor to first floor, 13 ft. 10 in.; first to third floors, 11 ft. 3 in. each; third to fifth floors, 11 ft. 0 in. each; fifth to seventh floors, 10 ft. 9 in. each; seventh to eighth floors, 11 ft. 6 in.; eighth to gallery, 17 ft. 0 in.; gallery, 8 ft. 6 in.

All the floors are lighted by steel casement windows and the topmost floor by a lantern.

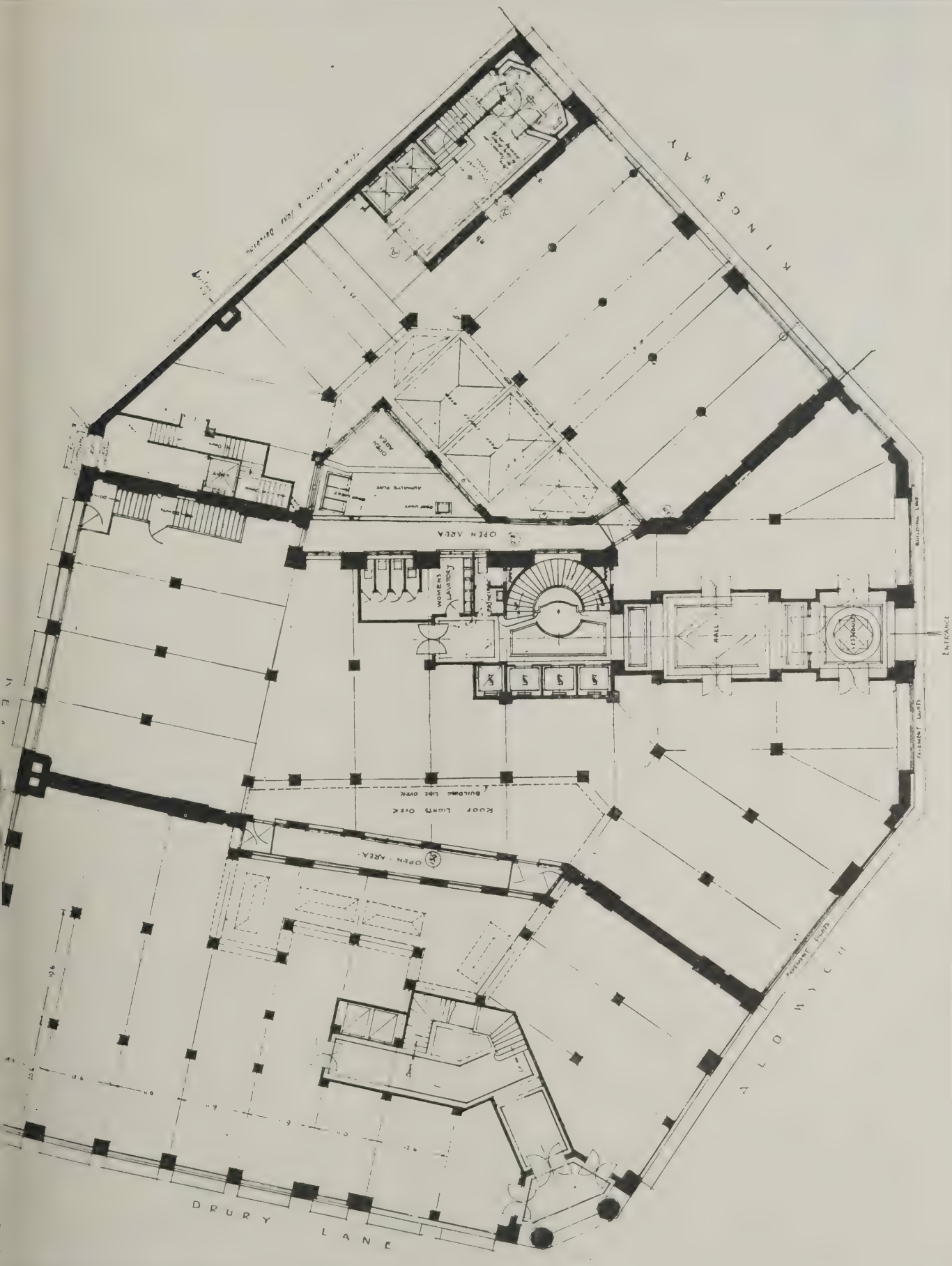
The front of the eighth floor and the gallery formed in the octagonal tower are used by the Shell-Mex Company restaurant. Here as many as 350 lu have been served at one time. the windows at this altitude remar views are obtained of London and of miles of country beyond.

All the staircases are lined to a h of 5 ft. with a dado of white tiles, reli by a small recurring pattern. Exits the building in case of fire are provide balconies linked up to the adjoining b ings, and four fire escapes are pro at each floor. Ample lavatory ac modation is provided throughout three buildings. Fuel is stored a the boilers and enters them practi automatically, thus effecting a very saving of labour. The heating and v lating system has been specially desi by Mr. A. H. Barker, B.A., B.Sc.

Messrs. Foster and Dicksee, Ltd. general contractors, prepared all joinery work in their own works and worked the Portland stone fa Other contracts include: Messrs. Po Dean, Ransome (steel construct work), Messrs. Strode & Co. (hea Messrs. Geo. Wright, Ltd. (sanitar



GENERAL VIEW OF SHELL CORNER, KINGSWAY. TREHEARNE AND NORMAN, ARCHITECTS.



SHELL CORNER, KINGSWAY: GROUND-FLOOR PLAN. TREHEARNE AND NORMAN, ARCHITECTS.



SHELL CORNER: ENTRANCE HALL.

tings), Messrs. Williams and Gamon, Ltd. (steel windows), Messrs. W. B. Simpson and Sons (marble, tile work, and terrazzo), Messrs. W. T. Allen (cast-iron panels), The Light Steelwork Ltd. (staircase balustrade), Messrs. Hill and Smith, Ltd. (lift enclosures), Messrs. Waygood Otis, Ltd. (lifts), Messrs. Strode & Co., Ltd. (electric wiring, etc.), The British Luxfer Prism Syndicate, Ltd. (lantern and pavement lights, etc.), Messrs. Parker, Winder and Achurch, Ltd. (ironmongery, locks, door furniture, etc.), Messrs. Wilmer & Co. (fire escapes). The contractor for the westernmost building is Mr. W. J. Maddison, of London.

The Walsall Roof Collapse

Wet rot, in the opinion of Mr. H. W. Shipley, of Messrs. Jeffries and Shipley, architects, was the cause of the roof collapse at the Walsall Temperance Hall. At the time of the collapse 680 people were seated in the hall. One woman was unfortunately fatally injured, but it is remarkable that only a few others were seriously hurt. The Temperance Hall was built in 1866 from the designs of the late Mr. S. Loxton, architect.

The theory at first advanced that the collapse was due to dry rot in one of the main principals has, on detailed examination, been proved to be incorect. Mr. H. W. Shipley, after making various tests, has formed the opinion that the breakage was due to wet and not dry rot, which may have developed within the last five or six years, or extended over a period of twenty years; it was difficult to say. The beam which snapped was of pitch pine, 48 ft. long, and carried 15 ft. of the main roof. The breakage occurred at the point where one end rested on the wall. Having regard to the position at which the decay occurred, Mr. Shipley says, it would have been absolutely impossible to detect the mischief without from time to time taking off considerable portions of the slate roof above or the ceiling b A frequent periodical examination not be considered necessary, seeing breakages of this kind very occurred.

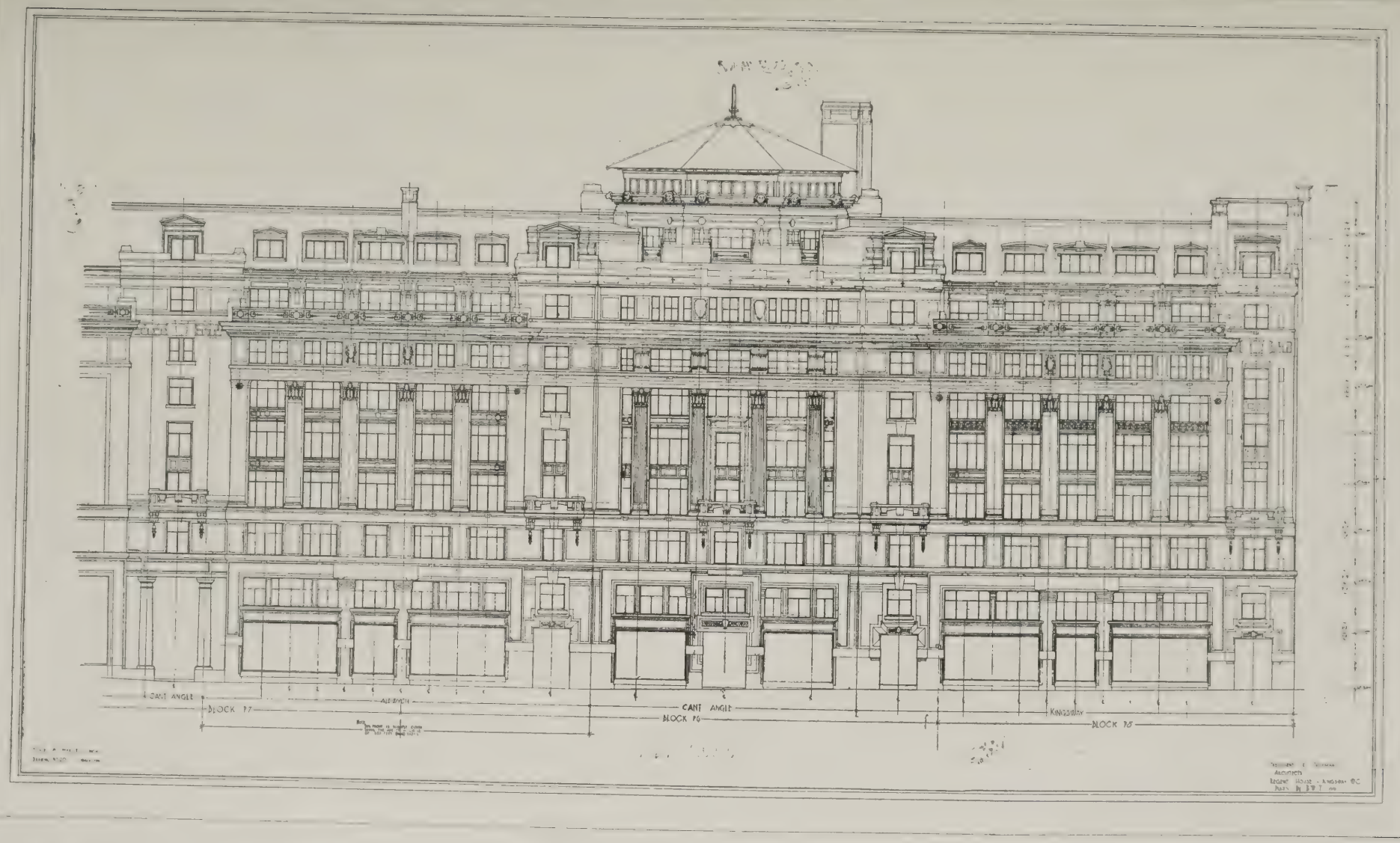
After the collapse there seems to been a very real danger of the building falling. When the one e the principal gave way, the pull and on the opposite wall, where the othe of the beam held in position, must been very severe. It was also re able that the slate roof above the beam held in position. As a mat fact, it had shifted two inches examined. Originally there were principals, each carrying a weight of of roof. Seeing that there was a d of a general collapse, Mr. Shiple no time in arranging for the roof walls to be completely shored up.

Alterations to the hall were carrie under the supervision of Messrs. J and Shipley in 1912, at a cost of s thousands of pounds. The roof, hov was not touched, except that fresh lating apparatus was installed.

The work of reconstruction is pushed along as quickly as possibl the cost will run into many thousa pounds. The whole roof is to be st in order that a detailed exami may be made of the beams, and likely that all the others will be re by steel.



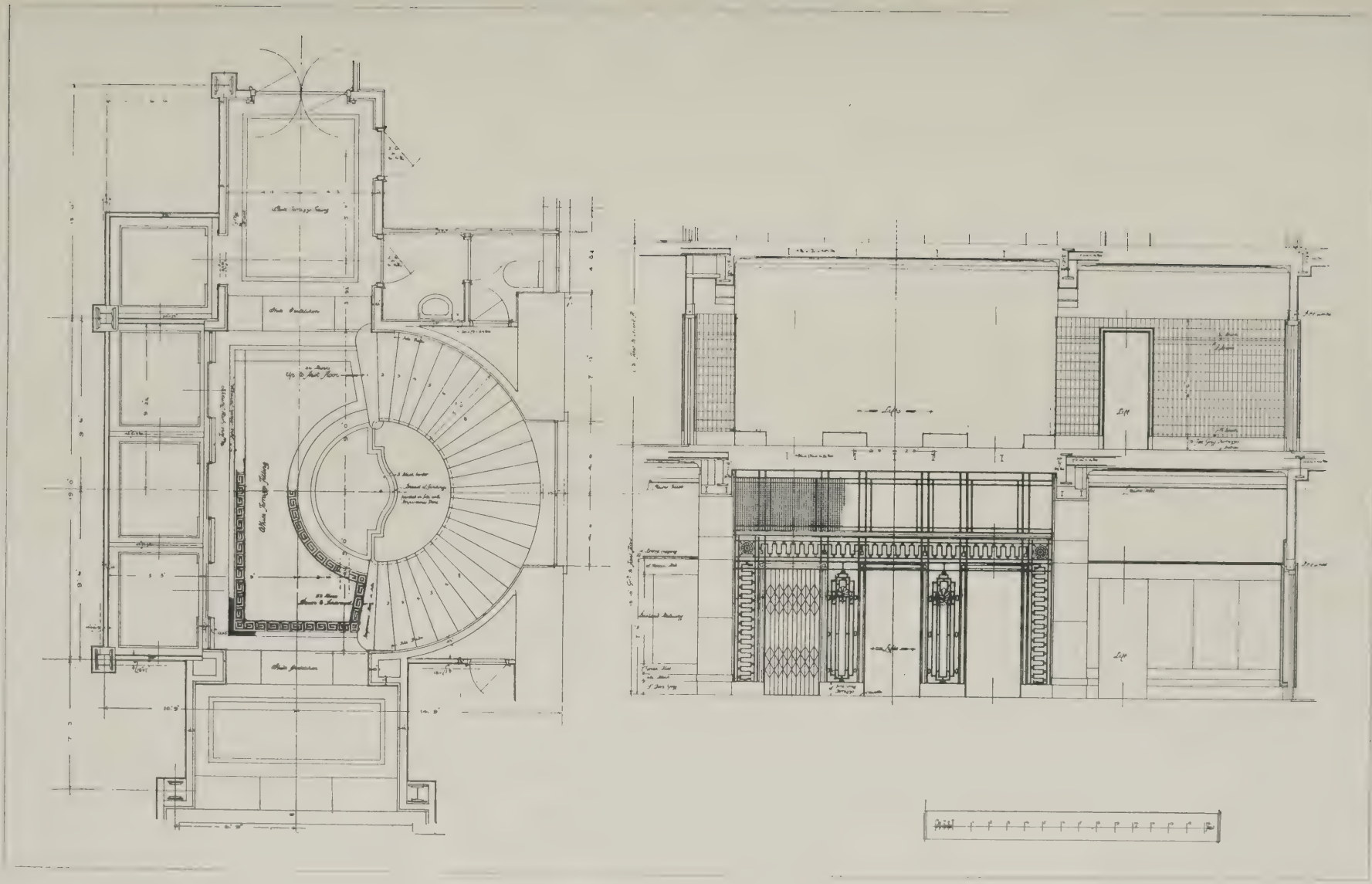
SHELL CORNER: RESTAURANT.



Architecturally the lower end of Kingsway has now been completed by the erection of a large block of buildings (known as Shell Corner) from the designs of Messrs. Trehearne and Norman. This block forms a balancing group for Empire House, which was erected by the same architects a few years ago. Certain changes have been made in composition and detail, but in general architectural character the new work corresponds with the old.

Lift Enclosure

Trehearne and Norman, Architects



"Shell Corner," at the lower end of Kingsway, is a large group of office buildings comprising three separate sections, each with its own entrance, staircase, and lifts. The above drawing, showing the arrangement of these features in the centre or angle block, should be studied in conjunction with the plan illustrated on page 587.

Correspondence

uty in Common Things

o the Editors of THE ARCHITECTS' JOURNAL.

rs,—The greater part of Mr. Arthur 1's letter on the above subject, pub- d in your issue for November 2, is so that one hesitates before attempting iticize or to add to it.

is an appreciation of Miss Lena vell's admirable speech—which surely ed every architect who read it—but also an appeal to architects to "come y before the public and speak plainly ie subject."

hilst sharing with Mr. Keen a whole- ted appreciation of Miss Ashwell's of beautiful common things, one very doubtful if lectures to the ic on that subject, as it affects archi- ire, will ever do more than provide appreciative layman with just that le knowledge, which is a dangerous g."

ike, for example, the lectures on itecture of John Ruskin. They were en in beautiful English, were widely , and had a great effect on the archi- ire and on the public of his time, with orable results. What may one expect e the result on the public mind of preaching of many and conflicting ries of design ?

ie public cannot be educated by nding a few lectures, but only by the itecture which it sees. Those who ide the means of education will not vrong in following that wise advice che ta vie et répands tes œuvres."

Yours faithfully,
ARTHUR WELFORD.

roduction and Labour

o the Editors of THE ARCHITECTS' JOURNAL.

ofessional men should never lose an rtunity to make the mechanic ze that cost of production is deter- d by efficiency of labour. We all v there is plenty of literature dealing personal efficiency, scientific manage- , business organization, etc., the gard of which in these days means re. Few appear to trouble about ging home to the workers' mind that early every instance raw materials h we use in building operations are of Nature; that probably 90 per of the cost to-day is expended in ir; that the excessive cost of build- s due to inefficiency; that slow pro- ion means abandoned work. We an appalling list of such in common, ear, with all professional men whose ies should be bent in the direction ying to restore confidence between tal and Labour.

pitalists in recent years have suf- from what might well be termed cution (for want of a better phrase), modern legislation has been directed ndering to the working classes with nevitable result that they have been led.

is indisputable that the British anic is the finest and most skilled er in the whole world. If we could arouse the pride in him which used to obtain we believe this country could hold its own. We believe if conferences could be arranged between Capital and Labour in an atmosphere free from politics, some progress might be made in obtaining better harmony between all classes which go to make up a state.

Yours faithfully,
ARCHITECT.

How to Revive Public Confidence in Building

To the Editors of THE ARCHITECTS' JOURNAL.

SIRS,—Houses that are commenced before April 1 next are to be exempt from taxes for ten years in New York. Why not try this in old England ?

I think a revival of house building in such a natural sort of way as this would in itself bring about public confidence in building and restore many trades to prosperity. Allay the dangerous unrest largely due to bad housing conditions, and at the end of this ten years it may have dawned on architects and builders to enquire, "Why tax buildings at all—any of them ?"

Yours truly,
J. CRABTREE.

Surveyors' Fees on Abandoned Housing Schemes

A meeting of members of the Surveyors' Institution practising in quantities, and members of the Quantity Surveyors' Association, has been held at the Institution "to consider proposals, which had been the subject of negotiation between the representatives of the two societies and the Ministry of Health, for the purpose of meeting the situation created by the abandonment of housing schemes and by the employment of separate surveyors on a number of sites forming one scheme." In the unavoidable absence through illness of Mr. George Corderoy and Mr. F. H. A. Hardcastle, Mr. Walter Lawrance presided over a large attendance.

In opening the proceedings the chairman gave an interesting résumé of the negotiations which had taken place between the representatives of the profession and the Ministry of Health, in the first place in connection with the laying down of surveyors' fees under General Housing Memorandum No. 4 and No. 31, and later in endeavouring to come to an agreement with regard to differences of opinion which had arisen as to the proper interpretation of those Memoranda and as to the fees which should be paid where schemes were wholly or partially abandoned. He also explained in detail the reasons which had led the representatives of the two societies to decide that a settlement of the outstanding differences was desirable in the interests of the profession.

A draft of a new General Housing Memorandum prepared by the Ministry of Health was placed before the meeting. The principal provisions contained in this draft were :—

1. That for the purpose of calculating the fees payable to surveyors the whole scheme of a local authority should be taken as the unit (exception being made in cases of conversion into flats and the erection of block tenements); and that where quantities have been prepared by more than one surveyor for houses included in a single scheme, the total fees payable should be pooled and apportioned pro rata between them, subject to a proviso that where the amount so apportioned came in any case to less than the following minimum the fees should be made up to that sum. The minimum laid down was 2½ per cent. on the first £5,000 and 2 per cent. thereafter on the cost of the houses included in one block of each separate design for which separate quantities had been prepared, and ½ per cent. on the cost of the remainder.

2. That where houses for which quantities have been prepared and the houses were not erected or were reduced in number, the payment in respect of the abandoned houses should be one-half of the fees which would have been payable (subject to certain maximum prices for different types of houses) if the work had gone on.

3. That in the event of further houses being erected from the quantities previously prepared, the balance of fees should be payable on the basis of the difference between the fees on the tenders then accepted and the amount already paid.

A lengthy discussion followed, during which a number of questions were asked and answered. Reference was specially made to the adverse manner in which surveyors engaged on small schemes, comprising a high proportion of separate types, would be affected. It was stated that special cases of this kind should be laid before the Ministry for consideration.

It was also agreed that a recommendation should be addressed to the Ministry to the effect that where schemes were abandoned the quantities should be returned to the surveyor; and that in the event of schemes being proceeded with later the surveyor originally instructed should be again employed.

The chairman then moved a resolution that the draft memorandum should be approved. On a vote being taken the resolution was carried by a large majority.

Unemployment Relief Schemes

With regard to the financial assistance to be afforded by the State towards the cost of works of public utility put into immediate operation for the relief of unemployment, the Cabinet Committee have come to the conclusion that it will be for the convenience of local authorities if all schemes are dealt with by the Unemployment Grants Committee. All future schemes, therefore, for which assistance is sought should be submitted to The Secretary, Unemployment Grants Committee, 23 Buckingham Gate, London, S.W.1. In a circular, No. 251, just issued for the guidance of local authorities, the Ministry of Health state that the scheme should be submitted in triplicate on forms U.G.C.4, copies of which can be obtained on application to the secretary of the Unemployment Grants Committee.

Repairs to a Hampshire Church

Repairs and other works in connection with the chancel of the Church of St. John the Evangelist, Boldre, Hants, have just been completed as a memorial to the late Mr. Shrubb of that parish. The old floor in the chancel has been replaced with Portland stone, the walls of the chancel and sanctuary have been replastered, the roof has been made sound, and the old Jacobean altar has been restored and enlarged, and oak panelling of Jacobean character erected behind it. The sanctuary has been fitted with tapestry, oak cornice, pilasters, and skirting, and a new oak altar rail of Jacobean design has been set up. A brass tablet records that this work has been carried out as the memorial to her late husband by Mrs. Shrubb. In the North Chapel a second altar has been erected, and the completion of the whole will be effected by the new choir seats and priest's desk to be erected to the memory of the late Vicar, the Rev. E. H. Elers. The architect is Mr. W. J. Horseman, of Southampton, but owing to a serious and prolonged illness he was unable to carry the work to completion, and Mr. Ravenscroft, F.S.A., F.R.I.B.A., was requested under these unfortunate circumstances to render help. The work has been executed by Messrs. Udall & Co., of Southampton, Mr. Bates, of Lymington, supplying the tapestry panels.

Picture Exhibitions

The London Group.

This group probably makes as keen an appeal these days as the New English Art Club did a decade or so ago, and in both cases one might detect, behind the anxiety of the public, a genuine love of the artists themselves for the definite modernism which either movement did, or does, represent so unmistakably, in spite of minor and fortuitous discrepancies.

In this 15th exhibition of the London Group two things strike the visitors: One is the quality of the painting taken rather as a craft; the other, the predominance of landscapes and still life. The application of paint to canvas gets more and more direct and fierce almost. In many cases it is done through a wonted thinness of oil, an unforeseen legacy of Cézanne.

Talking of the father of Impressionism, his devotion to landscape is still cultivated in England, not only in spirit, but in letter. E. Seabrooke is noticeable in that respect. "Path in a Wood" is as good an example as any; a finer piece of landscape has seldom been hung in the Mansard Gallery, and together with Vanessa Bell's "Still Life," and Duncan Grant's "The Tug, Pont Neuf," are possibly the finest things in the show. But of other landscapes, you should see O'. R. Dickey's "Port Muck" and "The Inkpots," the last a beautifully-balanced painting, and one chiefly valuable for the mastery of tone-selection it displays. If O'. R. Dickey is still palpably influenced by Ginner and Pissaro, he is not the only one. Miss Ruth Doggett, with her "Village Street," and especially her "Landscape," and W. Ratcliffe's "Chalk Pit, Betchworth," are in their own very able and personal way equally reminiscent of these artists.

A young modernist of whom we shall doubtless hear more very soon is E. Wolfe, going by his "Landscape, South Africa." A will to a complicated lyrical interpretation is here discernible, and Wolfe knows enough about his craft to make the effort with ease. The same cannot be said of Ethelbert White's latest ventures, which show scenes in Spain. They are too conscious in design and colour arrangements, which failure is blatant in his water-colour of a bull-fight. As to his "Irrigation in Spain," it is far too stilted a design for so moderate a canvas. R. Carline's monochrome drawing, "Mist on Hampstead Heath," betrays the flexibility of a sensitive perception, and it is a successful instance of his versatility, which is further shown in "Moonlight Scene." This is indeed one of those extraordinary paintings whose very boldness is a quizzical challenge. A spirited hybrid of a bad lithograph and a good Meninsky, it shows that painters—very properly at times—are not above painting with their tongue in their cheek.

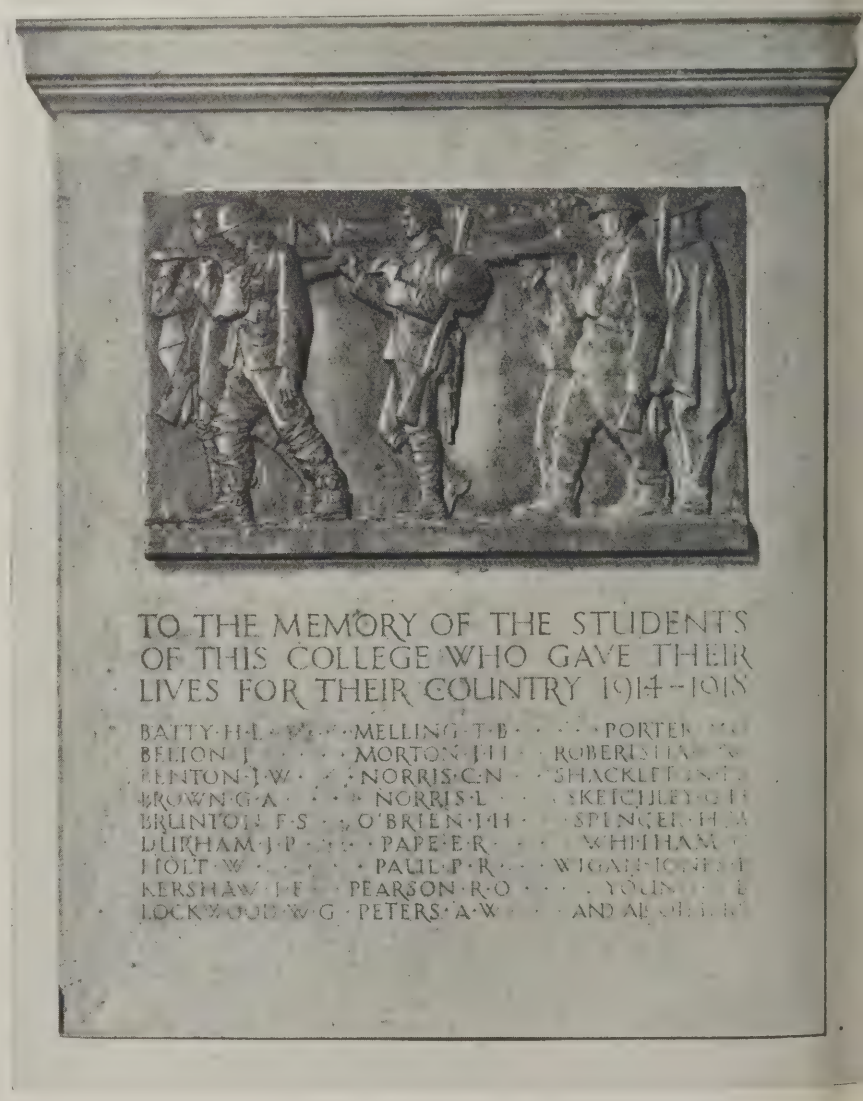
Therese Lesson, A. P. Allinson, the brothers Nash, and Walter Taylor, and Bernard Adeney are all there with excellent stuff. So is Keith Baines, wh "Still Life" is delightfully spontane Vanessa Bell, beside the canvas alre mentioned, has a fine oil sketch ca "On the Seine." Small, vigorous, an trap of happy light, it is the quintesse of æsthetic probity, and not less evic for the masculine relish with which it fixed.

G. HOL

Sir John Lavery, R.A., and Lady Lav

At the Alpine Club Gallery, catalogue is ably got up, with a "F word" by Mr. Winston Churchill. "Foreword," together with the numer exhibits, will help the real connoisseu while away a most pleasant half-h That Mr. Churchill can write with tinction and pungency on a sub especially his own now is evident by s esoteric snatches as, "the true integ of an effect . . . the infall measurement of colour and tone etc., etc." Much as he praises Sir Jol modest and manly works, this pales w compared with his encomium of L Lavery's drawings. Her portraits most distinguished, and "A Group— Flowered Hat" is full of delicate ev escence.

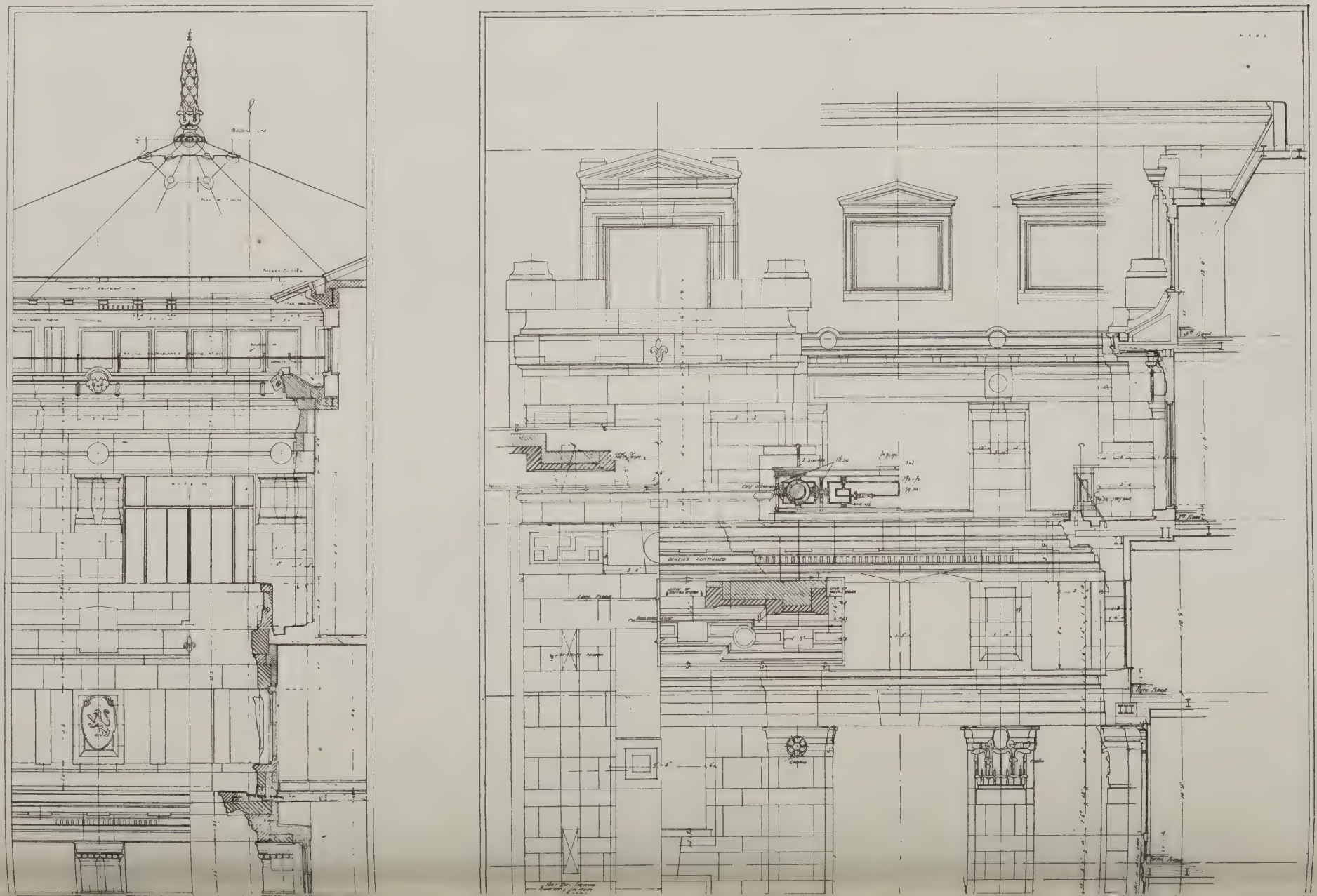
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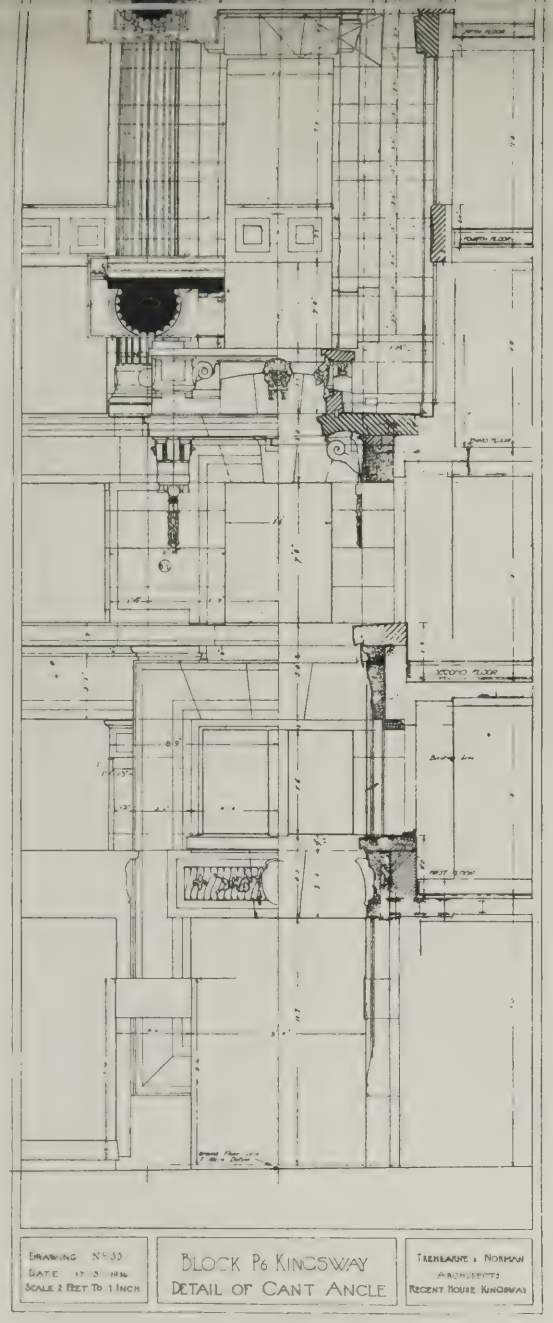


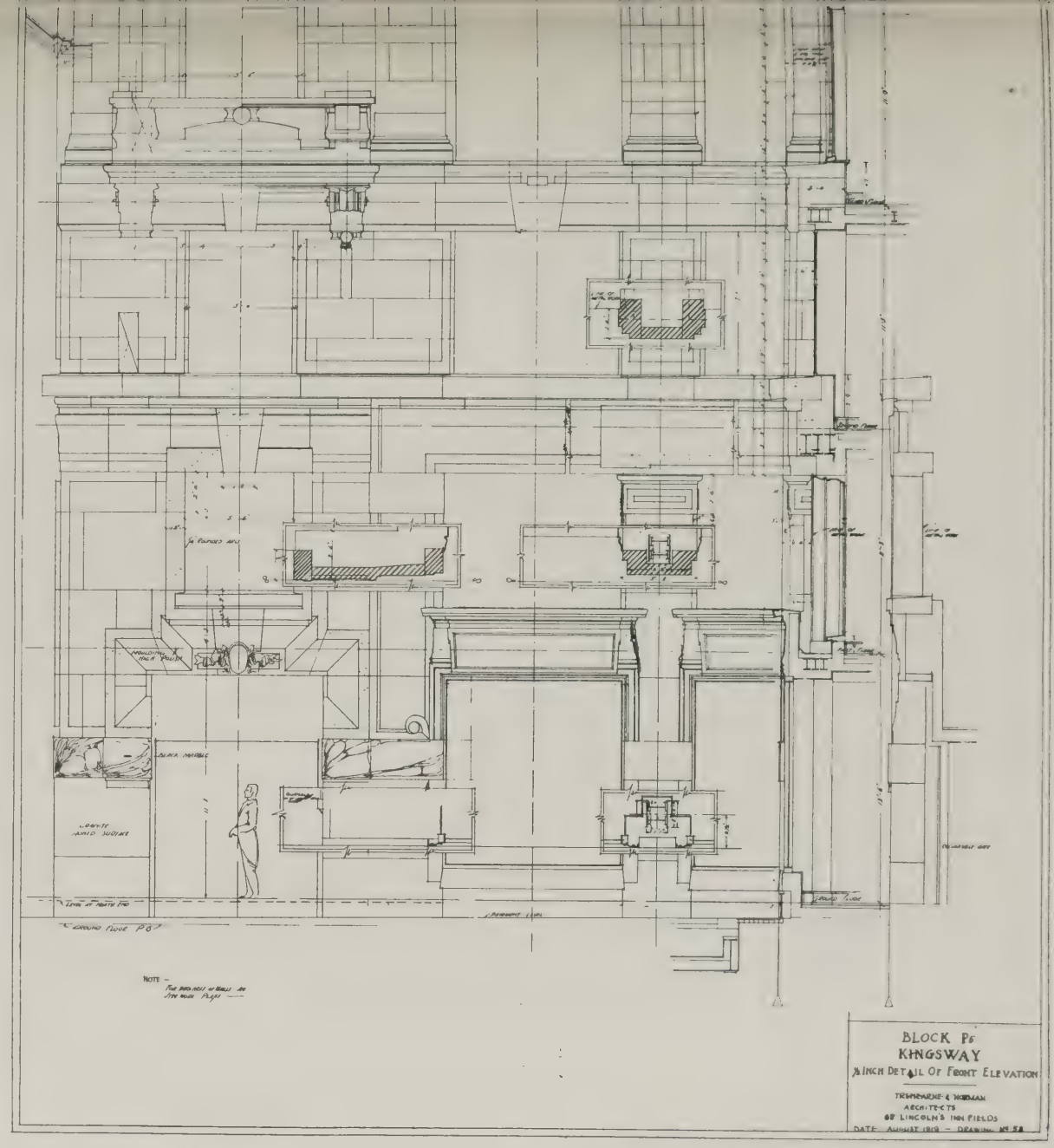
ROYAL COLLEGE OF ARTS STUDENTS WAR MEMORIAL.
DESIGNED BY P. METCALFE, A.R.C.A.

Architects' Working Drawings. 44.—Shell Corner, Kingsway, London: Details of Elevations

Trehearne and Norman, Architects







This building, situated at the lower end of Kingsway on the left-hand side, balances "Empire House" on the opposite corner—a building that was completed during the early part of the war. Architecturally the new work accords with the character of the various other buildings that have been erected in Kingsway from the designs of Messrs. Trehearne and Norman.

War Memorials. 23.—At Baker Street Station, Metropolitan Railway

C. W. Clark, A.R.I.B.A., Architect



This very dignified memorial tablet has been erected by the directors, officers, and staff of the Metropolitan Railway at Baker Street Station. It is constructed of white statuary marble, with a background of Greek Tinos. The marble work was executed by Messrs. Whitehead and Son.

Book Reviews

:ulpture of To-day

second volume of Mr. Kineton 's "Sculpture of To-day" deals with ıre on the continent of Europe, ıe author introduces it with the that the European Continental of sculpture possess characteris- ich are not shared with the Ameri- d British schools. There is much in the latter, but more fire in the "Anglo-American sculpture is ted, as a whole, with great techni- ity and careful gravity, Continental ıre with more temperament. In :a and Great Britain artists are made; those of the continent of are often born."

ere is," says Mr. Parkes, "as much l passion in the veins of a piece of as in the weave of a stretch of ," but there are not more than half n British and American sculptors ın show it, or even agree. What ı sculptor would think of setting and chisel to the working-out of a quotation from Omar Khayyám? Continental sculpture nearly always suggests a quotation: what quotation ever rises to the lips on gazing at the memorial outside the National Gallery to Nurse Cavell? To whichever illustrations in this second volume one may turn, one cannot but compare it with those in the first. At random, there is "The Cloud," by the Swiss, Arnold Hünerwadel, and again, "All the To-morrows Shall Be as To-day," by a Dutch woman-sculptor, Jo Schreve-Yserman. Both are beautifully done, and possess more thought than is to be found in half the war memorials which we have permitted to be erected up and down the country.

In "The Cloud" at once the sculptor gives the idea of limitless, aching distance, and in the latter that sense of unblessed hopelessness such as one feels when looking, say, at Bramley's "A Hopeless Dawn." The idea of both the sculpture and the painting in this instance is the same. In "All the To-morrows Shall Be as To-day," as in "A Hopeless Dawn," the figures are those of two women, the elder one seated and the daughter sunk at her feet. The hand and wrist of the old woman are as well done as the hand of the old captain in Millais's "North-West Passage."

In English sculpture the sculptor seems always to be saying to himself: "You see, you can't do anything you like with stone, but if I were expressing myself on canvas or on paper——" But in Italy, in France, in Austria, the artist is never limited by his material, and has the confidence that just as much can be expressed with the chisel as with the pen or the brush.

H. JOHNSON.

"Sculpture of To-day." By Kineton Parkes. A Survey of the Sculpture of the Present in Two Volumes. Volume II, Continent of Europe. 30s. net. London: Chapman and Hall.



"DANCING WOMAN" BY IVOR MESTROVIC.
(From "Sculpture of To-day.")

White Portland Cement Stucco

Stucco has at last come into its own. Nash, and the brothers Adam, had, it is true, firmly established its reputation in the eighteenth century, but in the 'sixties and 'seventies of the nineteenth there was something very much like a "dead set" against it. That was, no doubt, partly because the French had departed from the sound traditions of the early Greeks and Romans by substituting for their cement stucco a lime stucco that had no durability. With the advent of white Portland-cement stucco all objection to the material on æsthetic or other grounds is likely to disappear utterly. That is what has happened in America, and history is likely to repeat itself here; for white Portland-cement stucco, long and favourably known in the States and on the Continent of Europe, has recently been introduced into London, where it has been used with the success apparent from the accompanying illustration of a building newly erected in Cannon Street. In the United States white Portland-cement stucco is extensively used by architects of the highest repute, who regard it as a material that not only looks well, but is also durable and dependable.

A handsome booklet, entitled "The Stucco House," which has been widely circulated in America, but has been hitherto but little, if at all, seen in England, deserves to be better known here, and a copy of it is available for inspection in the Architectural Reading Room at 27 Tothill Street. This booklet contains, as its principal feature, a great number of well-produced photographic process views of American domestic work in which this inexpensive and artistically effective material has been used with conspicuous success. In every example illustrated in the booklet, the effect—whether the white Portland-cement stucco has been used alone or in conjunction with brick, stone, or half-timber, and whether the finish is plain or decorative—is always entirely charming. The appearance of such houses, whether they are seen in an illustration or in three dimensions, would surely remove the last lingering traces of prejudice from the

mind of the most inveterate opponent of stucco, more especially because the examples shown are the work of architects, and have been selected with the object of demonstrating the architectural possibilities of this particular kind of stucco.

A very considerable æsthetic advantage claimed for this material is that various colour-tones and several different kinds of texture can be produced in it to harmonize with any particular type of architecture. The material can be applied to any type of wall construction, and may be used as a surfacing for masonry construction; may form part of a monolithic concrete wall, or may be used as a skin in frame construction. The best materials, however, on which to apply white Portland-cement stucco are monolithic concrete, concrete block, hollow tile, brick or stone.

A brief summary of the advantages of this kind of stucco refers to the beauty of tone that it acquires by mellowing with age, or that can be imparted to it by introducing colouring matter into the "mix"; to the variety of styles of finish from which a choice can be made; to its insulating properties; and to the complete control of the material that its plasticity affords; while the variety of surface textures obtainable is, as the writer of the booklet avers, "limited only by the ingenuity and artistry of the architect." Various finishes — sand-floated, sand-sprayed, stippled, roughcast or spatter-dash, pebbledash, and exposed aggregate —are illustrated in the booklet by photographic reproductions from actual specimens of each style of finish, and the methods of producing these various textures are described in ample detail. Colouring is achieved preferably by mixing the white cement with coloured sands or stone-chips; but pigments or stains are alternatives, and a list of the most suitable among the former is given in the booklet, which contains also some tables showing the correct proportioning of cement to sand in making the s Several pages of diagrams show the of construction of various types of ing, with approved methods of ap the stucco surfacing to them. specifications for stucco work of thi are also appended, and a special c on the practical application of stu replete with valuable information.

The two illustrations here reproduce the booklet (and the photographic v page 603, of the building recently e in Cannon Street, E.C., for Messrs. East and Blades) confirm the clai white Portland-cement stucco is e amenable to architectural trea The material, in fact, deserves to be known among English architects will doubtless welcome it as a va addition to their more familiar res

"The Stucco House: A Book for those Build—Owner, Architect, Builder." [Issued A copy may be seen in the Architectural Readin 27 Tothill Street, Westminster, S.W. 1.]



HOUSE AT PASADENA, CALIFORNIA. J. CONSTANTINE HILLMAN, ARCHITEC
(From "The Stucco House.")



"HARD WORK" BY GUILLAUME CHARLIER.
(From "Sculpture of To-day.")

The Revival of Stu

The new building for Messrs. East and Blades, illustrated on pa is one of the first in London to be with external "stuc," although a material has been in use in Ameri on the Continent for some yea effective as stone, but consid cheaper, it is composed of stone base of white Portland cement, re impervious to moisture and cracks by special preparation. more or less new as an external d it has been used internally a goo for banking halls, halls, vestibule staircases of residences and b premises. A polished finish is g desired, and any stone can be im The architectural possibilities material are well shown in the Street building.

Stuc is more expensive than "c and sand plain face," but far supe appearance; as it does not require ing or any further treatment extremely economical in the long r

The architects were Messrs. W. bell Jones, Son, and Smithers, a general contractors Messrs. Hollan Hannen and Cubitts, Ltd. The tractors for external stuc were the Decoration Co., Ltd.



HOUSE AT PHILADELPHIA, PA., BEFORE AND AFTER STUCCO TREATMENT.
(*From "The Stucco House."*)

"The Electrician" Diamond Jubilee Number

"The Electrician," which first appeared on November 9, 1861, has celebrated its Diamond Jubilee. To mark the event a Diamond Jubilee Issue has been published. Congratulatory messages are included from such eminent engineers and scientists as Mr. T. A. Edison, Sir O. Lodge, Senatore Marconi, Sir Alfred Ewing, Mr. Edward Hopkinson, M.P., Sir Charles Bright, and Mr. J. S. Highfield, president of the Institution of Electrical Engineers. It also contains historical and technical accounts of the development of telegraphic and other electrical application since 1861. Though "The Electrician" has always been recognized as an organ of the telegraph, telephone, and, above all, of the wireless interests, it appeals to electrical engineers as a whole by being representative of both the oldest and newest ways of using electricity industrially. Its volumes are a fascination to the historically minded electrical engineer, and mark a most significant transition in the mode of living of us all.

Parliamentary Notes

OUR SPECIAL REPRESENTATIVE.

Tenders for Housing.

A. Mond informed Dr. Addison that verage tender prices of A type s submitted and accepted in Feb- was £821; in March, £693; May, June, £687; August, £628; Septem- 596.

The Ilford Housing Scheme.

or Entwistle asked whether it was sed to build on the foundations y laid for 410 houses beyond those completed for the City of London ord, for which streets were made the necessary sewers, gas mains, lectric cables, and which were at it abandoned and becoming covered veeds. Sir A. Mond replied that he dvised that it would be possible to e of this site for the erection of s, or to utilize the existing founda- at a later date for building at a lerably less cost than under the al contract.

The Arch to Old London Bridge.

M. Conway asked whether the First iissioner of Works proposed to take steps, by scheduling under the nt Monuments Act or otherwise, event the unnecessary destruction e recently discovered arch of the eval London Bridge.

John Gilmour replied that the Office orks was anxious to preserve the le ruins of old London Bridge, and ached the owners, who, however, ior prepared to incur the very heavy diture involved. The First Com- ner, moreover, regretted that the at his disposal made it impossible itemplate a purchase, while a Pre- ion Order would suspend building ions now in progress for any period eighteen months, during which time rder would have to be confirmed by ment. As his department could uarantee such confirmation, it was le that any such action might not d in preserving the archway.

M. Conway: Will my hon. friend s influence with the Bridge House to obtain such small funds as may ded to preserve this arch?

Sir John Gilmour: I have no doubt that the First Commissioner of Works will take such action as is possible.



NEW BUILDING FOR MESSRS. BLADES, EAST AND BLADES, CANNON STREET. W. CAMPBELL JONES, SON, AND SMITHERS, ARCHITECTS.

The Central Heating of Dwelling Houses

Some Further Observations.

There appeared in the March 30 issue of this Journal an illustrated article entitled "The Central Heating of Dwelling Houses," in the course of which an account was given of the working of a warm-air heating apparatus in a Hampshire residence.

It was shown that by means of a single coke-burning furnace placed in the basement the warmed air passed through a grating in the floor immediately over the apparatus, and not only freely permeated the whole house, but that the cooler air thus displaced, in its descent to the heater, automatically set up a circulation. That a house could be heated without resort to open fires, radiators, or any method involving the installation of a system of piping, was, in fact, the justification for calling attention to it.

As the contributor of the article referred to, the writer may perhaps be permitted to give the results of his further enquiries regarding this exceedingly simple method of central heating, not merely in view of the interest which an architect naturally takes in such a subject, but also because the present spell of cold weather has brought the question of heating very much to the front.

The expectation that this system of heating had by now become widely known and adopted, was confirmed by a recent visit to the manufacturers of the apparatus, who stated that they had fixed many scores of such heaters throughout the country, and that in every instance the results were satisfactory. It was further pointed out that among the numerous types of buildings in which the apparatus had been successfully installed, it was conspicuously efficient in such cases as private houses, offices, and show-rooms in London, and also country residences and churches.

Mention was made by the secretary of the company that not only architects, but the public generally, were taking an increasing interest in this particular system of central heating, and that this was largely, if not entirely, attributable to the fact that each apparatus installed created its own sphere of interest. As it was by actual investigation that your contributor was himself convinced, it may be taken that the foregoing conclusion is most probably a reasonable one.

Since the only purpose the writer has in submitting these supplementary observations is to place on record his actual experiences of what is without question a most remarkable development in the science of heating, he proposes to conclude his remarks by briefly referring to three very dissimilar applications of the system which he has personally inspected.

The first was a large residence in Eaton Square, where the size of the house presented no obstacle to the efficient working of the plant. So effectual, indeed, were the results which attended the introduction of the heater, that the drawing-room on the second floor, which previously to the installation was always kept closed during the winter becau could not be warmed, is now in daily

Christ Church, Blackfriars Road, is second example, and here also the app tus performs its functions with ma success, despite the adverse condit arising from the compulsory use o existing flue-pipe of great length faulty alignment, for carrying off products of combustion from the hea

In the last of the three, namely offices and showrooms of an impor commercial firm in Upper Thames St the same uniformly comfortable war was experienced as in the other instar It should be remarked that the ex sive floor area and correspondingly g cubic capacity of the premises nec tated the employment of the largest of furnace manufactured, and that the floor which had to carry it wa timber construction, all risk of fire removed by laying upon a portion o a slab of concrete for the reception of apparatus.

London Store Building

A joint meeting has been held of London Building Act Committee of R.I.B.A. and representatives of the corporated Association of Retail Di butors. Practically all the big store London were represented. The leader the architects' side were Sir He Tanner, C.B., F.R.I.B.A., and Mr. De Joseph, F.R.I.B.A. It is understood whole question of the revision of London Building Act came under sideration, as a result of which a repo to be presented to the R.I.B.A.

The Dickins and Jones Building, Regent Street : Progress Photograph No. 9



Higgs & Hill, Ltd., Builders

The above photograph is published by courteous permission of the architects, Messrs. Henry Tanner, FF.R.I.B.A. Good progress was made during October, and it is expected that the ground floor will be handed over during the present month.

The Utility of Concrete*

By S. BYLANDER

(*Concluded from last week's issue, page* 575)

s, of course, possible, and often sirable, to appoint a third party, no is competent both in the design arrying out of the work, to control he design and the execution. The and execution are necessarily de- nt upon one another, and during ogress of the work changes are often ary owing to causes over which r the designer nor the contractor mplete control.

ordinary clerk of works, who may hly competent in brickwork, stone- and other general trades of build- nstruction, is not necessarily com- to supervise reinforced concrete or ural steelwork; but if he is an honest ntelligent man, and is coached by esigning engineer and given the ary information in form of standard cations and requirements in writing, course of a short time he can be- quite efficient, provided the de- g or consulting engineer is visiting orks occasionally. The clerk of can then act both in a general ity for the building, for the archi- nd as a specialist inspector for the te engineer. The architect will lly accept the engineer's advice on ons of strength and safety, and all nstructions will be given by the ect, the engineer acting as the ect's deputy.

Faulty Work.

ring the last fifteen years I have had nfortunate experience of having to nstructions for the cutting out of a quantity of faulty concrete work. has been anxious and disagreeable for me, a loss to the contractor, and y a loss to the owner also. It has found necessary to safeguard the ity of the structure. The defect easily have been avoided, and y without any extra cost, had proper ion been given the work. I have ered faulty design also, but less I consider the use of high stresses ss serious than bad work, as the es are chosen after consideration, ad work is usually caused by ignor- or carelessness, and the result may sastrous. I cannot, therefore, too gly emphasize the need for care in g concrete.

s far better to employ an expert to vise the work, so as to eliminate the bility of trouble and expense at a date. The expense of failure may enormous compared with that of a visor that the latter may well be ten. It is true that the contractor s contract with the client is solely nsible for the safety of the struc- but as the method of erecting a ng is involved, and reinforced con- so complicated, it is not easy to nine after the failure has occurred s to blame, and my experience is t is not practical in all cases to the contractor with the cost of g the work good. In most cases it is impossible to make the work entirely good once it is badly done.

Accuracy.

I do not believe in the use of high stresses when supervision is not certain, and in any case if low stresses are used in a design the structure may not be safe because of faulty work on the site. Under no circumstances should reinforced concrete of any magnitude, or even part of a structure, be carried out without proper detail drawings and specifications. One must always bear in mind that the construction of concrete on the site is distinctly a manufacturing process similar to other manufactures of materials, that it must be accurately made, and that it is not similar to laying bricks, setting stone, or filling in rough concrete in foundations below the surface level.

Continuous observation must be made on the use of the aggregate. Often the coarse material is taken from heaps which contain fine aggregate in the centre and coarse material at the sides. Some trouble should be taken in mixing the small and the large sizes to get the uniform grading. I have seen many faulty structures due to carelessness in using an excessive amount of fine stuff with the coarse material. Granite chipping dust or "flour" kills the cement, and loam and clay reduce the strengths to a dangerous degree unless present only in very small quantities.

An excessive amount of granite dust and small stuff in the coarse material will produce faulty work, particularly at the soffit of beams, and in columns where construction joints may occur. Different layers in such case may have different strength and adhesion to new concrete. Do not leave off concreting without completing the part in hand up to the line of the stopping board. When dinner hour or the end of the day approaches arrangements must be made in good time for the proper stopping off of the concrete.

Do not make horizontal or raking construction joints in the concrete in beams or slabs, as I have frequently found that the concrete cannot be relied upon to adhere. For instance, in careless work some concrete may be spilt and deposited at the bottom of a beam having reinforcement, and afterwards the beam completely concreted in the ordinary way, with the result that the soffit of the beam may easily fall off and separate at the joint between the old and the new concrete, and obviously such a beam is not fit to take the load it is calculated for.

Joints.

The surface of old concrete must be hacked and roughened before the new concrete is placed next to it, otherwise the new concrete will not adhere, owing to the formation of a surface material, "laitance," which is different in nature to the average concrete or cement. This surface material, or "laitance," may be particularly noticeable when concrete is placed very wet, and in great thickness, say, 12 in. to 18 in. I have seen the "laitance" formed on the surface $\frac{1}{8}$ in. thick. This "laitance," which contains chiefly decomposed cement which has lost its binding and setting nature, has the effect of covering the concrete with a layer similar to loam or clay, and makes a surface of an oily nature. This "laitance" is not formed at a vertical joint, made by the use of the stopping-off board, hence the importance of making vertical joints.

When horizontal joints in concrete must be made, then it is advisable to rake off the surface after the concrete has taken its initial set, and remove the "laitance." I have sometimes seen the surface of the concrete roughened by means of a spade in the same manner as a man might loosen the soil in his garden. This way of treating concrete is, of course, wrong. The concrete which is loosened will be little better than gravel placed on top, and cannot form a good bond. The hacking may preferably be done a few hours after placing the concrete, and the loose material must be swept away and washed off. The close hacking is the most effective way of forming good bond to new concrete.

In light construction it is very necessary to protect the concrete from frost, and from drying out too quickly. Thin floor slabs should be kept wet for several days after laying, particularly if a hard and good-wearing surface is required. I have found top surfaces of concrete very soft due to lack of water for setting.

Don'ts.

Sometimes in practical work it is most valuable to look at those things which should be guarded against. Here are a few suggestions "What not to do":—

1. Don't do any concrete work without complete detail drawings and written instructions. The design of reinforced concrete work is too intricate to be determined on the site.

2. Don't do any concrete work without instructions with regard to approved proportions, kind of cement, approved aggregate, and approved construction joints. The drawings of the reinforced concrete work should give the requirements of each part of the structure.

3. Don't concrete any part until the reinforcement is secured in a position accurate to the drawings, and approved for that part.

4. Don't use cement of unknown and unapproved quality. Keep each lot of cement separate in sheds on the site until the test results are known.

5. Don't use sand which is dirty and upon which more than 3 per cent. in volume of very fine materials (loam or clay) settles in water on top of the sand after shaking with water in a measuring glass. Also don't use sand that is dark in colour, which indicates organic matter, or that which has the majority of the grains less than $\frac{1}{32}$, unless mortar test is approved.

6. Don't use coarse materials mixed with sand, or if dirty (surface coated with clay, etc.), or if not graded and of proper size, or if containing excess of stone dust, or if soft and not of specified kind.

*Paper read before the Liverpool Architectural

7. Don't proportion coarse material and sand or cement without the use of reliable measuring devices, such as boxes, hoppers, bags, scales, etc. The component parts must be measured separately. Apportioning by judgment without measure may be dangerous.

8. Don't allow an excessive amount of sand or water in the mix. Measure correctly every mix.

9. Don't forget to keep the mixer clean. Gravel and water does it.

10. Don't re-mix, or use, partly set concrete.

11. Don't leave mixed concrete standing during meal hours, or allow concreting to be discontinued until each part is completed. In case of accident or enforced stoppage remove the concrete which cannot be completed for a part.

12. Don't use concrete when it is more than fifteen to twenty minutes old, but reject it. Watch intervals for meals.

13. Don't allow the dumping of concrete out of the mixer until the mixer has made at least twelve turns since the last material was added, although the mix may appear acceptable.

14. Don't allow the coarse material to separate from the mortar, but keep on mixing the concrete during transport and placing.

15. Don't dump concrete into water, or put it in from a height more than 6 ft.

16. Don't forget to see that the forms are washed out clean immediately before concreting, and that they are tight and braced.

17. Don't leave concrete without being punned immediately after placing.

18. Don't allow construction joints, except where shown or described as permissible.

20. Don't forget to chip off spilt concrete and loose and rough parts, and hack construction joints for bond and clear the forms.

21. Don't let concrete dry out too quickly, but keep it wet for at least a week in hot weather.

22. Don't strike important forms until the concrete is fairly hard and rings when hammered on.

23. Don't forget to verify that the reinforcement is provided accurately for each part, as shown on drawings; watch marks and diameter of bars.

24. Don't allow butt joints of main bars, but insist on proper lap, say 30 in. over hooks for ordinary sizes, and in any case not less than forty times the diameter, and allow splice only in places where approved.

25. Don't allow main bars to stop short at the ends, and see that the shear steel is properly placed.

26. Don't allow the too close placing of bars in concrete, particularly at the junctions of the beams and at the columns. Watch vertical bars in columns at beam levels.

27. Don't allow sharp bends of main bars in columns and beams except at ends for anchors.

28. Don't omit anchor ends and hooks on shear members—links and hoops to extend sufficiently into the concrete. Hooks round steel bars are not sufficient. Bars in compression must be held by links to prevent buckling.

29. Don't forget to take concrete cube samples of concrete as poured, and note particulars for record and testing.

30. Don't rely on the safety of a structure unless the materials are tested, the concrete is tested, and the work inspected in detail.

31. Don't do important reinforced concrete work without one competent person is appointed with authority to issue instructions and supervise, to approve or reject the work, and to accept responsibility.

32. Don't estimate the cost of reinforced concrete without a complete description, and details to illustrate the kind of work required. It is a bad policy to give out a contract at a losing price, as scamped work possibly will result.

Quantities.

Quantities should be prepared from the drawings and used by the estimator. Preferably the structural concrete should be in a separate bill, and not in the general bill under foundation-concrete. In the reinforced concrete bill concrete, forms, and steel should be included separately for each part of the structure, and not the total for a building. I would recommend the quantity surveyor to make use of the recommendations contained in a booklet which is published by the Quantity Surveyors Association, and which contains the report of the joint conference between the Quantity Surveyors Association and the Concrete Institute. This conference held many sittings, and I know of the useful amount of work done, as I had the privilege of acting as chairman. The structural engineer's fee for supervision, plans, and cost of inspection should be stated separately, and included in the cost of the work, unless it is to be paid by the building owner.

I feel confident that scientific methods are necessary with regard to design, execution, and testing. While I recommend that test results should be adopted as a basis for deciding what kind of materials to use, I would offer the caution that the tests must be made in a standard manner and by reliable experimentalists. It is possible to obtain results from tests of the same kind of concrete varying by 50 per cent. by using different percentages of water, and by different mixing and ramming, and the rate of increase of load in the test. There is need for standardization in the method of testing as well as in the method of making concrete.

Testing Cement and Sand.

Samples of cement may be taken from several bags of each lot of cement on the site, placed in waterproof sealed bags, and tested by a specialist. British Engineering Standard mechanical tests should be called for. Soundness test is most important.

For sand sifting tests are usual, giving percentage of residue on $\frac{1}{8}$, $\frac{1}{32}$, $\frac{1}{50}$, $\frac{1}{75}$, $\frac{1}{100}$, $\frac{1}{200}$ sieves to ascertain size of grains and how much passes $\frac{1}{75}$ sieve. Washing tests are usually made to ascertain to what degree sand is dirty. A test glass or bottle, half filled with sand and the remainder with water, is shaken after standing for an hour, when the thickness of fine stuff on top of the sand which settles down can be measured by volume.

The mortar crushing test shows the binding qualities. One part of cement and three parts of sand should be used in making 3 in. cubes for crushing. At least three cubes should be used for each set of tests, and the average taken as the result. Care should be taken to use cem of known strength and quality.

Coarse Material Tests.

Screening is used to ascertain the due on 2 in., 1½ in., 1 in., ¾ in., ⅝ in., ½ ⅜ in., ¼ in. screens, and the grading of s can thus be determined. If some mate passes ¼ in. mesh it should be treate fine aggregate or sand, whether pebbles are clean or dirty, and its e can best be ascertained by crushing t of concrete cubes made of that mate Washing tests are not suitable as sand.

Concrete crushing tests may be m as follows :—

(*a*) Cubes made in the laboratory f materials as used in the work.

(*b*) Cubes made on the work from crete as taken when pouring at the w

(*c*) Cubes cut out from the finished w

Either kind, (*a*), (*b*), or (*c*) may adopted, but it must be considered w comparing that cubes made in labora are more accurate, and should give hi crushing results. If made on the site must be taken that the cubes are properly when maturing and prop marked for identification. If (*c*) undertaken the identity of the mat must be verified by the person seein cut out.

Crushing tests of cubes should be m in sets of three 6 in. cubes from the s concrete made at the same time. set of three may be crushed when se days old, and one set of three w twenty-eight days old. The twe eight-day test is the most desirable, three months test is seldom practic as delay is too great.

Concrete 1 : 2 : 4 mix, twenty-e days old, should have at least a crus strength of 2,000 lb. per square inch only 1,600 it must be rejected. cement, mortar, and concrete tests variable owing to many causes i desirable to have at least three specim made from exactly the same material the same time, and made and kept u the same conditions. The average of tests of three specimens may be take a fair value of the materials, while test only may not be sufficiently accu It is not probable that the same curacy will occur in all three specimen

Church House Buildi Scheme

The newly formed Church House and Works Committee has met under chairmanship of the Archbishop of terbury. The committee's terms of ference are : (1) To review the schem building the Church House on the De Yard and Tufton Street site; (2) To sider the whole question of the con tion of the buildings, including the vision of the necessary moneys, an necessary, to formulate a plan; (3) make all necessary inquiries invo thereby, with power to employ expert advice as may be required; (4 consider whether any, and if so w steps should be taken to provide (*a*) the alteration of, (*b*) the adaptatio or (*c*) the adjustment of tenancies o existing buildings for recent or pros tive new departures in Church orga tion; (5) And to report from time to to the Council.

The Week's News

Housing at Derby.

)erby 450 houses have been com- and 662 commenced.

Housing at Tring.

;o has been received by the Tring District Council from the Public Loan Commissioners for housing.

Mr. F. G. Briggs's Estate.

F. Gatley Briggs, of Blackburn and ool, partner in the firm of Messrs. and Thornely, left £18,281.

Professional Practice.

Herbert J. Axten, A.R.I.B.A., has nced architectural practice in Road, Enfield.

'andle Valley Sewerage Scheme.

Wandle Valley Joint Sewerage are applying to the Ministry of for sanction to a loan of £300,000 verage works.

Harrow Church in Danger.

Aston Webb, P.R.A., is investi- a subsidence discovered in the porch of Harrow Parish Church. ortion of the church affected dates 220.

ew Nurses' Home for Guildford.

new nurses' home for the Royal Council has been begun at Guild- The total cost of the home, which erve as a war memorial for the Branch of the British Red Cross y, is estimated at £10,000.

Morpeth Housing.

foundation stone has been laid in ction with the housing scheme at ington and the Morpeth Rural t Council. At present 42 houses be erected, but it is hoped to com- oo houses.

The Brady Street Area.

ject to certain modifications, the ry of Health have confirmed the l scheme of the London County il for the improvement, under II of the Housing Act of 1890, of ady Street area, Bethnal Green.

Building in Canada.

re has been a very large increase in ng activity in Canada since August. acts to the value of $36,307,200 awarded in August, as compared $17,741,400 in July, an increase of 100 per cent., to which Western a contributed very substantially.

rd Wimborne's House Remodelled.

Edwin Lutyens has been in col- tion with French artists in advising Wimborne as to the remodelling of lington Street house. A new oval with columns and a domed roof has built and some fine French statues position there.

Banff Housing Site Award.

official arbitrator has awarded 10s. 5d. to the trustees of the late ess Dowager of Seafield for four of land compulsorily acquired by Banff Town Council as a site for nen's dwellings. The claim of the ees amounted to £12,000.

Oxford Housing Scheme.

The lay-out plan, prepared and submitted by a panel of architects, for the Cumberland Road housing site, has been adopted by the Oxford Housing and Town Planning Committee. Forty-nine houses, each having a frontage of 18 ft., are to be erected.

Benfieldside's New Houses.

New houses built at Highgate, Blackhill, by the Benfieldside Urban District Council, have been formally opened. The complete scheme will provide 164 houses, of which 16 are now ready for occupation, and 68 are rapidly approaching completion.

The Dome of St. Paul's.

A new structure is being erected in Saint Paul's Cathedral to support the dome while repairs are being carried out to the south transept arch. Big steel girders weighing 150 tons, and capable of supporting 4,000 tons, are being constructed from the crypt piers to the apex of the arch.

Housing at West Hartlepool.

The Town Council have received the sanction of the housing commissioner to the erection of a further 50 houses on the Raby Road site. The Council are asking the Ministry of Health to sanction the erection of 138 additional houses at Rift House, and 136 at Raby Road. In these two districts there are now 206 houses in various stages of construction.

The Concrete Institute.

The President of the Concrete Institute, Mr. E. Fiander Etchells, A.M.Inst.C.E., A.M.I.Mech.E., Hon. A.R.I.B.A., has accepted an invitation to become a vice-president of the Public Works Roads and Transport Exhibition and Congress to be held at the Royal Agricultural Hall from November 17 to 25. The Concrete Institute is paying an official visit to the Exhibition on November 21 at 5.30 p.m. Members intending to be present may be supplied with tickets upon application to the Secretary of the Institute, at 296 Vauxhall Bridge Road, S.W. 1.

West of England Home Exhibition.

The West of England Health and Home Exhibition, which opens at the Drill Hall, Millbay, Plymouth, on December 7, is the first exhibition of a purely domestic character to be held in that district for some years past. The exhibits will comprise everything connected with the home, and will include building, decoration, furnishing, lighting, heating, cooking, and labour-saving equipment. It is the intention of the management to issue ten thousand personal invitations and complimentary tickets to municipal officials and departments, and to the leading architects and professional tradesmen within a ten mile radius of the Hall. The bands of the Guards, Devon Regiment, and the Royal Marines have been engaged for certain independent periods of the exhibition. The organizing manager is Mr. Ewart Watson, of 116 Tavistock Road, Plymouth.

The Architectural Association.

The Architectural Association (Inc.) have issued an extremely interesting brochure of illustrations showing architectural features of the newly adapted premises. Each illustration is accompanied by a brief explanatory note, and particulars are given of the work, membership, meetings, library, lantern slide collection, and social functions of the Association. The producers are to be congratulated upon the very tasteful manner in which the brochure is got up. The Architectural Association has a library of upwards of 4,000 volumes, and a collection of 5,000 lantern slides, all of which are available to members.

Harborne War Memorial.

Harborne War Memorial, which takes the form of an octagonal cross, has been placed at the top of the main avenue in the churchyard of St. Peter's, overlooking the Lickey and Clent Hills. The cross is placed on a pedestal and base of Portland stone, and the names of the fallen men appear on the eight faces. On the four sides at the base are carved panels showing the symbols of the Passion. The cross in the churchyard is the first part of the Harborne Parish War Memorial. The second part is the erection of a memorial church, when the time is ripe, in the neighbourhood of Balden and Lordswood Roads. Donations to the amount of some £2,500 have been given or promised. The cross, which stands 23 ft. high, was designed by Mr. Edwin F. Reynolds, F.R.I.B.A., and the work was carried out by Mr. William Loxley.

£500 Parlour Houses.

Sir Charles Ruthen (Director-General of Housing), speaking at the Holborn Restaurant, London, said that the Ministry of Health, so far as the Government's housing policy was concerned, had been over-optimistic. It desired a gigantic housing scheme, and that houses should be provided in hundreds of thousands. But the Ministry overlooked one important fact, perhaps the most important fact, that to build hundreds of thousands of houses it was necessary to have a gigantic industry, which did not, in fact, exist at the end of the war.

The present position of the national housing scheme was that the usual work had progressed fairly satisfactorily—it being possible to go only so fast as the limitations of the weakest link imposed. That link comprised the workers in the plastering and tiling trades. There were actually only 263 plasterers unemployed in the whole of England, Wales, and Scotland.

Figures would prove that immediately the Government decided to restrict the number of houses under the present scheme the output per man went up, and obviously the cost of houses went down. More important still, the number of completed houses went up. He believed in a short time we should be within reach of a £500 parlour type of house, and that would be the rock-bottom price of the post-war house. It would represent a house which before the war cost from £250 to £300.

Building Trades Parliament

The first day's proceedings of the Building Trades Parliament, which opened last Friday, was, as on previous occasions, marked by somewhat acrimonious interchange of opinions. Little, indeed, was actually accomplished; but, as one speaker justly remarked, a very pretty display of class feeling was given.

The Report of the Management and Costs Committee was the *casus belli*. Mr. Foster, Chairman of the Committee, moved a resolution to the effect "That the reports of the Committee on a scheme of Unemployment Insurance be approved and recommended for acceptance to the various federations composing the Council . . ."

Mr. Foster was urgent in support of this scheme, arguing that, heavy though the expenditure entailed, it was not unremunerative. Fear of unemployment, he said, led to slackness. That fear removed, increased production and improved prospects for the industry would ensue. It was a vexed question as to who should bear the cost of unemployment, but the principle that each industry should bear the cost of supporting its own reserve of labour was becoming generally accepted.

Mr. Cross, seconding the motion, repudiated the suggestion that benefits led to slacking, and pointed out that it was not to the interest of Trade Unions that their operatives should draw unemployment pay when there was work waiting to be done.

Mr. Smethurst pleaded for a policy of conciliation, co-operation, and recognition of the rights of both sides.

Mr. Geo. Hubbard contended that the resolution was not sound in principle. Anything that added to the cost of production was therefore of a retrograde nature.

A long discussion, not very much to the point, ensued. Speakers indulged in free abuse of "the other side," and advanced each his own economic views. Operatives apparently did not wish to contribute further to any scheme of insurance; employers expressed the same desire. Veiled threats of taking by force were made; the personal equation was advanced. There were those who contended that fear of unemployment was one of the main incentives to work, others argued that it killed all effort. The details of the scheme itself, which was the subject nominally under discussion, were utterly neglected.

At five o'clock the Council adjourned until the following day.

Competition Award

Chauny Water Supply and Sewerage.

The jury of the competition opened by the Municipality of Chauny, in collaboration with the Renaissance des Cités, for the supply of drinking water and of a sewerage scheme for Chauny, reassembled recently, under the presidency of M. Descambre, Mayor, of Professor Gariel, and of M. Edmond Bonjean. The Municipal Council confirmed the proposals made by MM. Dimitri and Dollfus for the water supply, and of MM. Rolants and Dr. Guilhaud for sewerage, and awarded the first waterworks prize of 10,000 francs to M. Jean Maillard, engineer of public works of the city of Paris, and the second waterworks prize of 5,000 francs to Messrs. W. H. Radford and Son, of Nottingham, civil engineers, authors of two excellent schemes for taking water from the alluvials of the Oise Valley. The same competitors have obtained prizes of the same amount for the sewerage also, but the scheme of the English competitors was placed first, and that of M. Maillard second.

Latest List of New Inventions

Latest Patent Applications.

27907.—Compagnie des Forges et Acieries de la Marine et d'Homecourt.—Means for construction of metallic walls or partitions. October 20.

27590.—Ingham, A. — Building walls. October 18.

27661.—Insley Manufacturing Co. — Apparatus for handling building materials. October 18.

25707.—Paterson, F. S. — Bricklaying machine. October 17.

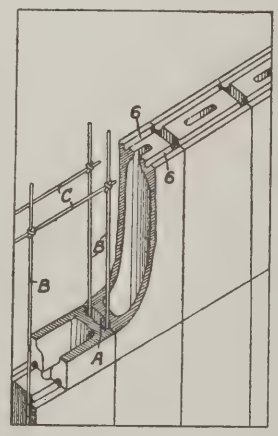
Specifications Published.

170033.—Hayes, W. P. and Hayes, P. G. —Concrete building.

147598.—Callenberg, L.—Walls for wooden houses.

Abstract Published.

168711.—Building-blocks; walls.—Yamanouchi, G.—124 Nakunocho, Yawata, Omorr-machi, Ebaragun, Tokyo, Japan.—Hollow rectangular blocks of concrete have plain front and rear faces, and are closed at the sides and also at the top and bottom, with the exception of small rectangular apertures. The top and bottom are provided with



grooves 6 and the sides with recesses A to accommodate the reinforcements C, B, which may be positioned before the blocks are built in. The walls are stated to be damp-proof on account of the air circulation and to be fire-proof.

The above particulars are specially prepared by Messrs. Rayner & Co., Registered Patent Agents, of 5 Chancery Lane, London, from whom readers of this Journal may obtain all information free relating to patents, trade-marks, and designs. Messrs. Rayner & Co. will obtain printed copies of the published specifications and forward on post free for the official price of 1/- each.

Coming Events

Friday, November 18.

Royal Technical College Archite Society, Glasgow.—"Notes on Construction." By David Skinner.

Monday, November 21.

R.I.B.A.—"School Design." B G. H. Widdows, F.R.I.B.A.

Tuesday, November 22.

Liverpool Architectural Society corporated).—"Architects and Arc tural Journalism." By Mr. W. T. P Editor of "The Builder."

Wednesday, November 23.

Industrial League and Council.— Industrial Revolution in England." Mr. H. E. Blain.

Manchester Society of Architec "Professional Practice." By Mr. Buckland, F.R.I.B.A., President.

Thursday, November 24.

Builders' Benevolent Institutio Sixty-ninth Annual Dinner, King Ed Rooms, Hotel Victoria, Charing W.C. Mr. A. B. H. Colls, F.I.O.B., i chair; 6.30 p.m. for 7 p.m.

Trade and Craft

Venus Pencils.

Many of our readers will be pleas know that Venus pencils may no obtained fitted in a leather pocket w These pencils, renowned for their bility and smoothness in writing, made in seventeen black-lead gra tions, from 6 B (softest) to 9 H (har The pencils, of course, can also be chased singly, or boxed in dozens.

Lighting, etc., Firms Amalgamate

The Allen Liversidge Co. and Imp Light, Ltd., have amalgamated and now trading as Allen-Liversedge, with offices at 123 Victoria Street, S The new company have also purch the entire business and stock of M W. A. S. Benson & Co., late of New Street. Many of Messrs. Benson's staff have been retained. All this br of the work is centred at the a address.

Changes of Address.

The Heating Branch of Messrs. S Brothers has moved to No. 7 Bed Square, London, W.C. 1.

Messrs. Rippers, Ltd., shop fi have opened offices at 165 Gray's Road, London, W.C. 1, where their s fitting business will be concent under the direction of an expert s fitter. Telegraphic Address: "Ripp Kincross, London." Telephone Num Museum 4826.

Change of Address.

Owing to the increased publicity advertising business in connection the building, construction, and engi ing industries, the Phœnix Indus Services have been compelled to 70 Finsbury Pavement and move to and more commodious offices at 12 don Wall, E.C.2. The new telep number is London Wall 3374.

sday, November 23, 1921. Vol. LIV. No. 1403

THE ARCHITECTS' JOURNAL & Architectural Engineer

With which is incorporated "The Builders' Journal"



"THE WORKER."
New Soviet Russia National Monument before the Palace of Labour, Petrograd
(*See article on page* 613)

27-29 Tothill Street, Westminster, S.W.1.

New Czecho-Slovak National Monument at Prague



In Central and Eastern Europe nationalism is hard at work remodelling the forms of architecture and sculpture. The monument of Liberty at Prague is an outstanding manifestation of the new spirit. (See Mr. Huntly Carter's article "Architecture in Soviet Russia," in this issue.)

THE
ARCHITECTS' JOURNAL
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More Mathematics and Mysticism

NE remembers the success that attended the publication, a few years ago, of a little book, as quaint in matter as in name, called "The Loves of the Triangles." He who wrote it, as a rule, those who were tempted to read it, must been mathematicians of a certain well-marked such as like to temper their utilitarian science with an onal touch of romanticism. This type of mind seems fairly common, and the natural inference is that the al concentration exacted by habits of precise ascerent is subject to revulsions, and that relief from n is sought and obtained in exuberance of fantastic ht. Only a professor of mathematics unstringing nse bow could have written the "Alice" books, in the absurdest nonsense is often supported, and therenningly rendered the more ludicrous, by mathematical ning—of sorts.

t all mathematicians do not, like Lewis Carroll, seek relaxation consciously and deliberately. In others n instinctive and spontaneous effort to impart a glow man interest, a dash of warmth and colour, to what is an uncommonly drab and cold-drawn subject. ing, so largely dependent on exact measurement and roportion, naturally suggests itself as an appropriate t for mathematical diversions, and ancient and nerable are the attempts to prove that the beauties hitectural design are subject to certain fixed mathe-al rules.

Macody Lund, whose elaborate exposition of his stive investigations on the squares and angles de-d by the forms and proportions of notable buildings—athedral of Nidaros, in Trondhjem, Norway, receiv-ost of his attention—has just been published by order e Norwegian Parliament, is the latest investigator heorizer on these familiar lines. He is sincerely con-l that all the great buildings of antiquity owe the site proportions of their parts to the strict observance eir builders of a certain mathematical formula which und very learnedly expounds in his book.

the back of all such prolusions there is doubtless fundamental but elusive and indefinable kernel of on which, however, the mathematician, carried away s ardour, is apt to refine overmuch. At the same the mathematician who has an imagination—and ally first-class mathematician is without a robust pment of this fine faculty—is apt to let it run away im when, so to speak, he gives it its head and allows drag mathematics after it where it will. Hence the fanciful theories about mathematical refinements, trical standards of proportion, and the rest of the in-trade of the mathematician who refuses to see the tions of his favourite study, or to set any bounds enthusiasm for it.

course, nobody would have the hardihood to deny that hing can be in some way or other referred to mathe-al measurements. Leonardo da Vinci was but one of umerable tribe, of whom Pythagoras stands out as a ous early protagonist, of those who mixed up mathe-s with art, and tried to deduce theories of proportion-arts that should surprise the innermost secrets of beauty. Vitruvius was bound to state the measurements of the component parts of buildings whose harmony of proportion pleased the average eye. Wren, as everybody knows, was a mathematician as ardent as he was accomplished, but fortunately he turned his fine talent to practical advantage rather than to theorizing about the mystic significance or symbolism of numbers, proportions, and geometrical figures. He kept the whip-hand of his strong mathematical faculty.

Many of these imaginative and theorizing mathematicians are by no means content with careful ascertainment; they must needs speculate. Believing, with quaint and sagacious old "Urn-burial" Browne, that "All things are artificial, for nature is the art of God," they would test everything with square and compass, not merely to secure shapeliness and stability, but, further, to bring it into harmony with the laws of the universe, and goodness knows what beside of esoteric mystery. This is the fundamental principle on which certain secret societies base their creeds, formularies, and mystic rites; and most of these societies pretend to hold the key to profound mysteries that may not be divulged to the profane vulgar.

It may be that the disc and rays of a daisy agree in number, proportion, and disposition, with the relative dimensions in a great cathedral; but speculation as to the meaning of it all is more than ever rife, because such mysteries are eternally baffling, and we have got but little beyond the Tennysonian attitude towards these mysteries: "Flower in the crannied wall, I pluck you out of the crannies, I hold you here, root and all, in my hand, Little flower—but if I could understand What you are, root and all, and all in all, I should know what God and Man is."

We should be unwise to scoff, then, at any serious and reverent attempt to read the plan to which the Great Architect of the Universe has worked, and to show us to what extent men have worked in harmony with it, and by what means we may follow them in that endeavour. Nevertheless do we fear that a love of theorizing, and of ascertainment, real or supposed, may easily overstep the bounds of prudence, and often does so. No one doubts that in architectural design, as in all other human affairs, there is always a norm to be followed; but no architect will regard it as fixed, unalterable, imperative, whether it be regarded as an algebraical equation, a geometrical expression, the more variable proportions of the human figure, or the relative measurements of the component parts of the Parthenon, or, again, the formulæ advanced by Vitruvius, Palladio—or Batty Langley! As yet we have seen no convincing evidence that architectural design can be reduced to an exact science, or can be substantially based on a few select mathematical formulæ. It is recorded that when of old Jean Mignot of Paris was told by the building council of the cathedral of Milan "that the science of geometry was of no importance here, because Science is one thing, Art another," the Frenchman answered, "Art without Science is Nothing." His axiom is indisputable; but the converse is equally true. A discussion on these matters could not fail to be interesting, however inconclusive it might be, and we commend the subject to our readers, and to the lecture committee of the R.I.B.A.

Notes and Comments

The Devonshire House Gates

IT is good to see the grand old gates of Devonshire House standing erect again. This is their fourth site. Inigo Jones designed the gateway for the Earl of Middlesex, for whom the gates were erected at Beaufort House, Chelsea. Thence they were removed to the Earl of Burlington's house at Chiswick. Then they were put up to form the principal entrance to Devonshire House. Now they adorn the Piccadilly boundary of the Green Park, and may therefore be said to have only gone "across the way." Long may they continue there, defying the weather and the lawless mob. A tablet on or near them should briefly record their interesting history. It would be read by very many more persons than would ever have seen it if by ill-hap the gates had been consigned to the London Museum. There is not so much extant work of the Father of English architecture that we can afford to immure any of it that can be preserved out-of-doors.

The Virtue of the "Moated Grange"

A writer—apparently an architect—tells in "The Daily Chronicle" "Why the Grange was Moated." It was to protect against drought the clay soil on which the grange was built. With great astuteness it is noted that this must have been the reason for moating the grange, because most moated granges, when not on Christmas cards, are on clay soil. Where the moats have been filled in—presumably by persons ignorant of the purpose for which they were dug—last summer's protracted drought caused much shrinkage and sinkage, while where the moat has been allowed to remain as an interesting but doubtfully salubrious survival of Jacobean days the reverse has been the case. Many a suburban house-owner, presented with heavy bills for underpinning, re-pointing, re-plastering and papering, and, in the most serious cases, for well-nigh rebuilding, may now discern some sense in the "moated-grange" idea.

A Peculiar Point for Town Planners

In London the talk is of driving wheeled traffic underground. In Paris they have conceived an opposite view. They would relieve the congestion of the streets by putting the pedestrians in the tunnels. The Paris Municipal Council is proposing to run a "rolling pavement" underneath the Boulevards. The curiously miscalled "rolling pavement" would be really a travelling platform running on three endless bands moving at graduated speeds, so that, with luck, the fastest could be reached by stepping from the slowest on to the medium-paced, and hence on to the express-speed platform, which will move at the rate of nine miles an hour. If this scheme materializes and endures, it must ultimately involve drastic changes in the street architecture. Obviously, it would shift the shopping centres from places where pedestrians have taken cover to districts where they will emerge to the surface. English architects who for the moment have nothing better to do will at once begin to consider in what ways their work would be affected if the Paris scheme, finding favour there, were adopted in our own cities. It is always wise to look a little ahead.

The late Mr. W. R. Colton, R.A.

It is with deep regret that we record the death, which has occurred in London, of Mr. W. Robert Colton, R.A., vice-president of the Royal Society of British Sculptors. Mr. Colton, who was born in Paris in 1867, received his training at the Lambeth School of Art, and also studied in the schools at South Kensington, in the Royal Academy Schools, and in Paris. After his return from Paris he executed for H.M. Office of Works the drinking fountain which stands near the Serpentine at the beginning of the pathway leading to the Marble Arch. His statue "The Girdle," produced soon afterwards, is now in the Tate Gallery, together with his charming group in marble, "The Springtime of Life." In St. James's Park is his memo to the officers and men of the Royal Artillery who fe the South African War. Mr. Colton, in the early par this century, went to India, where he executed com sions for the Maharajah of Mysore; and he was also res sible for the Angas Memorial for Adelaide. In addi to a number of portrait busts, Mr. Colton executed memorial now in the Natural History Museum, So Kensington, to Selous, the hunter, naturalist, and explo a statue of King Edward VII at King's Lynn; the Tan memorial, Birmingham; and a war memorial at Worces etc. In his earlier days, besides works of sculpture perly so called, he executed various designs in colou plaster, and also in enamel. He was made an Assoc of the Royal Academy in 1903, a full Academician in 1 In the interval between these two elections he was t appointed Professor of Sculpture at the Academy, 1907–10, and 1911–12; he was also Visitor in Sculptur the Royal College of Art, a member of the Standing C mittee of Advice for Education in Art, and princ examiner to the Board of Education in modelling sculpture.

The Organ in Architecture

In what part of a church should the organ be plac It is a question that arises perennially. Mr. H. Heath Statham, who, besides being a Fellow of the Royal Instit is a proficient organist (and, we believe, was the musician to play the Albert Hall organ), urged repeate in these pages, that as "an organ never sounds so wel when it has plenty of open space round it," its old posi on the top of the choir screen in cathedrals was very fav able. Sir Charles Nicholson, F.R.I.B.A., in the lecture "Church Architecture and Organs" which he delive before the National Union of Organists' Associations in L don some weeks ago, advocated raising the whole organ gallery at the west end of the church, cathedral or ot alternatively, he advocated a position on the roodloft. Charles, however, was careful to qualify his advice. "M cians as well as architects," he said, "had a solid wal prejudice to scale if they attempted anything to which public was not accustomed." Sir Charles deprecated attempt to provide a large showy instrument at a low c and regretted the practice of omitting a substantial or case, which he would always provide, if only for its reson and mellowing effect; but that it can be made gran decorative, the magnificent organ-case in the cathedra Saragossa, and the even more beautiful and decidedly m architectural example in Haarlem, bear eloquent testim Anyone who would care to verify this statement would it worth while to look up the illustrations of these fine or in our issue of April 19, 1911.

Smokeless Coal

It is not too much to anticipate a not far-distant when grimy cities will not be tolerated. Soon there be no manner of excuse for polluting the atmosphere our cities and defiling their buildings with the product combustion. Sir Percy Girouard has examined and ported upon the operations of a low-carbonization plan Barnsley that promises almost complete relief from coal-smoke nuisance. He found that "coalite," b produced from "slack," mainly with the object of ec mizing cost, is incidentally smokeless, and its exten substitution for ordinary coal would "improve the dition of our atmosphere and the health of our peop The third leg of the tripod is that the general adoption means of rendering coal smokeless would avert the figurement and destruction of buildings; for it should be overlooked that coal not merely blackens, but dest them, depositing an acid that corrodes stone. It been sometimes alleged that a soot coating on a buil is protective; but chemical analysis of soot scraped fro building would reverse this verdict.

Architecture in Soviet Russia

By HUNTLY CARTER

DURING a prolonged visit to Central and Eastern Europe this summer and autumn I tried to find out, especially in the Secession States and Russia, what new tendencies in architecture and ɔture were manifesting themselves. In Soviet Russia ɡeneral tendency is best described by the word "proian." The term implies none of the principles and tions, æsthetic, ethnic and ethic, which characterize ɔnal forms of art. It is used in Russia to designate ɔne-class character of the population which the October ɔlution was engineered to produce. Thus the term letarian" stands for a member of a working class lation, it denotes collective or mass action, and it has ɪternational significance as a term that embraces not the All-Russia Workers, but the workers of the world. is fact means that the visitor to Russia to-day must expect to find architects and other artists, generally ɛing, producing form that represents the experience single and independent individual, embodying, first of æsthetic and national principles, but form that is ɛnce of the mass thought and action, and expresses predominating international revolutionary industrial ɾine preached by Marx and his disciples. The latter s an expression of People and Power.

ɪder favourable conditions doubtless many examples proletarian" architecture would have been constructed ow. But in Soviet Russia the conditions favourable rchitectural activity have, up till now, been lacking. ed, architecture, in common with other forms of art, ruggling for life against overwhelmingly bad economic itions. Perhaps architecture is in a more hopeless than the others. True, there are State Architectural ɪrtments, and Architectural Schools, and plans for new lings are as plentiful in Russia as in all parts of stricken Europe. But there is no money or building material; so, with the exception of primitive erections in villages, and certain industrial undertakings, such as the new power-stations and surrounding workmen's dwellings, which are springing up on the peat marshes in accordance with the ambitious scheme of electrifying Russia, practically nothing has been built or completed since 1914. In Moscow, the new and, from an architectural standpoint, very significant Kansansky railway-station, begun just before the war, remains uncompleted. It was designed by the Russian architect Tschiekev, who was evidently actuated, technically, by a typical old Russian architectural motive as revealed by the four towers. The outcome is not very successful. It is pure decoration, and, on the whole, looks like an attractive toy. Apart from its technique it has a pathetic interest. As a pre-war undertaking, it expresses the tragedy of Russia. In it one sees the old Tartar spirit, while all around are evidences of a Western European spirit. A synthesis of the two is unthinkable.

This survival of the old spirit represents largely the ethnic and ethic tradition in Russian architecture, and as such embodies those elements of racial experience which differentiate old Russian architecture from other national forms. It is an interesting question whether there is likely to be an attempt on the part of the young architects to solve the problem of the opposing styles of East and West (as determined by the industrial "revolution"), and thus to create a new form. Can anything be made of a mixture of, say, the old Russian architecture and the new Proletarian, of the Kremlin and Woolwich Arsenal? One would hardly think so. Probably they will stick to the "proletarian" ideal for a time and feverishly throw off designs expressing People and Power. But, after all, the thing in architecture is not to mix styles, but to give each



DETAIL OF CEILING DECORATION IN THE NEW BAGATELA THEATRE, CRACOW.

structure its own character in harmony with its function. This may be the intention of the Soviet Department for Architecture under the direction of Joltowski, a department which contains many outline plans for workmen's dwellings, villages, municipal parks, open spaces, schools, and other civic undertakings.

For the moment a process of architectural adaptation is taking place. This adaptation has a rather comic effect, and may have a disastrous psychological one, also, that is, if architecture has a powerful formative influence on the human mind. Many of the old palatial buildings in Moscow and Petrograd, once the residences of royalty and the nobility, have been commandeered by the Government and put to uses totally different from those for which they were originally designed. Perhaps the effect of turning the palace of the Grand Duke Vladimir Alexandrovitch into a "House of Learning" might not be so harmful to the "Movement," for this building certainly has many cultural features that may be associated even with the sort of learning which the Communists consider essential. But not as much can be said for the Renaissance palace which has been renamed the Palace of Labour, and is now used to house the trade unions. If evil company corrupts good manners I suppose we may say that good architecture corrupts bad ones. In front of this building has been erected a realistic semi-nude figure of Labour, which, no doubt, symbolizes the man in possession. Beyond this, it stands for the new national monument. Architecture has an expressional value. Good architecture is built according to a suitable formula, which expresses the purpose which it is asked to serve. Looking at these strange adaptations one can only conclude that the Bolsheviks are bad psychologists. Otherwise they would see the absurdity of using buildings that breathe forth violent reaction from every pore, so to speak, and would raze them to the ground instead, as they have razed their luckless owners.

Sculpture has a different story to tell. Many monuments have been erected during the past three of four years, especially in Petrograd and Moscow. Some of these replace the statues of the old ruling class which have been



THE MICHAEL BAKUNIN MONUMENT, MOSCOW.
BY BORIS KOROLJOW.



DETAIL OF WALL DECORATION IN THE NEW BAGATELA THEATRE, CRACOW.



The Bagatela Theatre is a typical example of the new movement in architecture that, as a result of newly-found liberty, has lately manifested itself in Poland. The theatre was built under extraordinary difficulties during the Bolshevik invasion. The "mirrors" are of tinfoil, mirror glass having been unobtainable.

oyed. Others occupy pedestals of their own. All the ones are alike strongly "proletarian," and symbolize communist ideal and the methods of attaining it. ; there are statues and monuments to those who have ated, continued, and re-initiated; to the old and new ers of the Movement, and to martyrs, past, present, possible. Statues of Marx are everywhere. Those to ls, Lassalle, Lenin, Trotsky, and other well-known nunists are also numerous. There is a monument to necht and Luxemburg, who were killed in Berlin. e are monuments to the Revolution, to historical erings, like the Third International, and there are ues to popular national writers, Nikitin, Schevchenko, the rest, and painters and composers, such as Scriabin Rimski-Korsokov. On the whole this work is strong realistic, and evidently intended to appeal to a public h has no appreciation for wild extremism. There are, ever, exceptions which prove that the revolutionary movement in sculpture has not left Russia. An example of ultra-extremism is found in the Michael Bakunin monument by Koroljow, on the Myasnizki Tor. It is said to be the first purely expressionistic statue the world has seen. It is meant to express the motive suggested by the paradoxical inscription, "The destructive spirit is the creative spirit." The effect is that of something emerging from or overcoming chaos.

Outside Russia nationalism is hard at work remodelling forms of architecture and sculpture. In Poland I met with one example of national sentiment in architecture in the new theatre-de-luxe, the Bagatela at Cracow. This was built under extraordinary difficulties during the Bolshevik invasion. The auditorium and stage are modelled on the new "little theatre" principles, and the decorative scheme embodies many attractive nationalistic features. Czecho-Slovakia, too, is throwing off independent forms, as the magnificent new statue of Liberty at Prague fully testifies.

uilding at Cost Price: Further Views of Leading Contractors

our last issue we published a number of letters from prominent building contractors dealing with the sug-ion (put forward by a correspondent in our columns) , in order to revive public confidence in building and to ore the industry to its accustomed activity, builders ld offer to undertake work of utility character at cost e for a limited time. Below we publish some further com-ications on the subject. We would reiterate what we last week—that the monetary sacrifice involved is realized by those who have put this proposal ard. Building work on the basis suggested could and d only be undertaken from patriotic motives—from nuine and earnest desire to see confidence in the ding industry re-established, and the alleviation of the ent widespread unemployment.

E. A. Roome & Co., Ltd.

r. F. J. Gayer, of Messrs. E. A. Roome & Co., Ltd., of kney, writes: "Your suggestion to publish the names of ng London contractors who are willing to carry out racts at cost price is quite a good one, and generally cides with our views, but we venture to criticize the ils of your suggestions, i.e.:

uantities to be supplied and the price agreed with the t's surveyor—the builder taking the risks above agreed . Any saving (after allowing 5 per cent.for establish-charges and use of all plant excepting mechanical t) to be credited to the client; builder's cost to be ted by the client's surveyor.'

t is quite a wise plan under present circumstances for uilding owner to be concerned in the saving that may be ted, but in order to produce that saving it is only reason-and to the building owner's true interest, that the ler should be given an incentive to produce something can equitably be divided. Obviously, in a firm con-ed by experts in the industry, organization, manage-, reasonable interchange and substitution of material, are reflected in the prime cost of the work, and it is in nterests of true economy that the builder should be ed to give of his very best, and in a like manner to ve a part of that which he has saved.

t is a fact that to-day many firms of repute are in such ong financial position that they are able to weather the n of trade depression. Many firms would indeed find uch more advantageous to retire from the turmoil of that unfortunately British industry has developed but, with a sense of the responsibility that capital has, decided to continue. These decisions, therefore, a certain liability for overhead charges that the taking on of work at practically cost price to some extent mitigates.,

"It is an unfortunate state of affairs that renders it necessary to have a slump to produce the very requisite purification of the industry. If only reason, without the driving force of want, would produce the necessary reforms it would be all to the good. The not unmixed blessings of a slump have brought labour to realize that the only true road to success in any sphere of life is 'Work.' It has also caused some concern to suppliers of certain building materials, where true competition has been replaced by rings and trusts.

"In our 'little town of London' there are no trusts or rings amongst the master builders; indeed the volume of work done by the Association is concentrated in the opposite direction, viz., to encourage building on true competitive lines, seeking the prosperity of the industry by fostering it rather than by bolstering up profits on American trust lines.

"The Press can influence trade prosperity to a very large extent, and it would appear wise and desirable to leave off preaching the doctrine of 'don't buy,' and preach in lieu thereof the doctrine of 'buy wisely,' and in this respect your suggestion admirably foots the bill."

Higgs and Hill, Ltd.

Messrs. Higgs and Hill, Ltd., of Crown Works, South Lambeth Road, write: "The suggestion contained in your letter is not a business proposition. Exceptional circumstances, however, sometimes demand unusual procedure. We would co-operate in any scheme which would help the present position, which is one of national difficulty.

"We presume there never was a time when so many architects had so much work held up. The regard held for the architect by the building trade is sufficient reason to weigh carefully any proposition, quite apart from personal and other considerations.

"If some work of utility would not be proceeded with except on the lines you suggest we should be quite willing to take it on. Revival of confidence will come quickest by reductions in cost. To cut the builders' profit will not achieve much. Better co-operation between architect, builder, and trade union, will do far more to reduce costs.

"We have had some experience in quick building work, and this shows us that to reduce time reduces costs. Time can only be reduced by co-operation, and here architects can help. Jobs so often start without the builder knowing everything before he begins. The client is often to blame, but it is the architect's function to settle with him in time."

Correspondence

Unification and Registration

To the Editors of THE ARCHITECTS' JOURNAL.

SIRS,—I am sure that your readers will welcome the leading article printed in your issue for November 9 dealing with the above subject. This matter is of the utmost importance to the R.I.B.A., and the greatest publicity is essential.

May I call attention to the existence of the "R.I.B.A. Constitution League," a lusty young body which is increasing in strength from day to day, and point out the principal objects for which it has been formed ? In the first place, it should be made clear that the League does not object to "Unification" or "Registration." It does, however, very strongly and definitely object to this end being brought about by bringing all the architects of the United Kingdom into membership of the R.I.B.A. *before* the passing of a Registration Bill, and you, sirs, have now made it clear to those "who are not sure what Unification of the profession means in the sense now under discussion," that it does mean what the "League" had suspected, viz. : bringing *all* architects into the membership of the Royal Institute.

Members of the R.I.B.A. have always been schooled in the belief that the Institute stood first and foremost for the advancement of architecture, and no one can successfully contest the fact that it is at the present time the most influential architectural body in the world. It is to uphold this great tradition that the League is forming, and the "young men with warm blood in their veins," who form the majority of its members, and who have won their way to the membership of the Institute by years of hard work, will not submit to the proposals of the Unification Committee, as now understood, without a strenuous fight. They are also aware that the matter must in the end be agreed to by the general body of members of the R.I.B.A.

The position is strengthened by the fact that the Royal Institute has always stood for a definite ideal, and over a long period of years has built up a reputation and a membership by a gradually improved system of architectural education, and since 1887 it has only admitted members able to satisfy definite tests. The fruits of this consistent policy are apparent to everyone in a general improvement in the architectural work of the last twenty years. It is therefore a matter of very serious import for it to be now openly advocated that all this should be thrown away and the Institute admit to membership—if they desire to enter—those who were previously inadmissible.

In connection with the "Model Form of Law for the Registration of Architects," published in your issue of October 19, a clause is given as follows : "Any properly qualified person engaged in the practice of architecture at the time this Act takes effect may be granted a Certificate of Registration." There could, as far as one can see, be no possible objection to this as a procedure for Registration. It is difficult to see, in any case, how it would be possible to enforce the employment of a registered practioner on any particular piece of work.

Unification first may mean a long wait for the passing of the Bill, during which period the ranks of the R.I.B.A. would have to remain open to practically anyone who wished to enter. In such circumstances it is most unlikely that students would be found willing to pursue the long and arduous course of study necessary to pass the Institute examinations during this waiting period when others could obtain membership (of equal professional value in the public eye) by the filling up of an application form.

It appears, therefore, that the R.I.B.A. stands to lose much more than it can gain by proceeding with this business on present lines. There is not the slightest reason, as far as one can see, for assuming that those of us who took our part in the war are any the less opposed to the destruction of what is essentially valuable in the Institute than those you imply to be its more conservative and academic members.

W. E. BROOKS, ASSOCIATE R.I.B.A.

The Site of Shakespeare's Globe

To the Editors of THE ARCHITECTS' JOURNAL.

SIRS,—A report by the London County Council on this subject has just been published, and, in the concluding paragraph, these words appear : "The position of the ground leased for the purpose of building The Globe has now been determined." The collection and investigation of the historical evidence has been, we are told, carried out by Mr. W. W. Braines.

Without in any way wishing to deprecate the efforts of Mr. Braines it may very respectfully be pointed out to him, that he has by no means determined this vexed question. In fact, there is no difficulty whatever in demonstrating that his conclusion, which he advances with so much assurance, is entirely wrong. A full reply to the L.C.C. pamphlet, of some 40 pages, is impossible in the space at my disposal ; but perhaps the following single instance may serve to prove that the site of The Globe was on the north side of Maiden Lane, and not on the south, as is wrongly contended by the L.C.C.

Maiden Lane, now Park Street, Southwark, runs E. and W. and there were two sewers in the road, one on the north side and one on the south. It is admitted by all parties that the Bear Garden was on the north side. If this fact is kept in mind, then the following order issued by the Surrey and Kent Sewers Commission on December 5, 1595, some four years before The Globe was built, will be found to have a distinct and conclusive bearing on the point. This order of the Commissioners requires . . . "William Sellor and all the land holders or their tenants that hold anie landes, gardeins, ground or tenements abutting upon the common sewer leadinge from Sellors gardein to the bear gardein to cast clensə and scower," etc. the sewer.

As the bear garden was on the north side of Maiden Lane, and the sewer ran between Sellors' garden and the bear garden, it follows that the garden of Sellors must have been on the north side of Maiden Lane. This is perfectly clear and undeniable.

Now it happens that William Sel figures in another and a very import contemporary lease transcript which g a recital of the boundaries of The Gl Playhouse. From this lease-transc of 1616 we find that the Globe site "abutting on a garden there or la before in the occupation of Will Sellors towards the East." Now, Sellors has been shown to be on the n side of Maiden Lane, and he is now sh to be abutting on the Globe site tow the East, it follows that the Globe itself was on the north side of Mai Lane. This lease-transcript itself st that the Globe site abutted "on a there called Maiden Lane towards south." If the southern boundary of Globe site was Maiden Lane then the must have been on the north side of the l

These two documents by themse prove beyond all question that The G was on the north side of the lane, other contemporary documents migh quoted to support that view. Weakl suggest (as the L.C.C. does) that t might be errors in these contempo documents, is begging the question fairly. The contemporary evidence the best evidence, and when this ha together quite naturally and logicall may be accepted safely.

In addition to the evidence of the temporary documents there is the series of map views, showing the the standing well to the north of Maiden L But the L.C.C. sweep aside the w series, and the only reference to the v is to be found in a foot-note : "In vie the unreliability, in matters of detail the early map views of London the dence on both sides is limited to tha a documentary character."

I can only conclude by saying those who saw the theatre and w about it, and defined its boundaries legal document, and those who saw theatre and drew it amidst its surrou ings, are much more likely to be r than the L.C.C. in the conclusions t have drawn some three hundred y after the Globe was pulled down.

GEORGE HUBBARD

New Government Buildin for Ulster

The following statement has b received from the President of R.I.B.A. : In August last the Presi of the R.I.B.A. and a few members of council were invited to attend at H Office of Works. As a result of t meeting it was, by the agreement of architects present, left to the Presi to give to the First Commissioner advice which he required to obtain f the Institute. In view of the fact t the Government had decided tha competition was for various reasons advisable and impracticable, the P dent took the course of laying before First Commissioner a comprehen and very carefully selected list of cap and available architects in Great Br and Ireland. Several of the gentle whose names were submitted will aware, owing to a private commun tion from the President, that their na were included in the list, but others- fact, the greater number so include received no intimation that their na were under consideration.

Current Architecture. 127.—War Memorial Lych Gate, St. James's Church, Tunbridge Wells

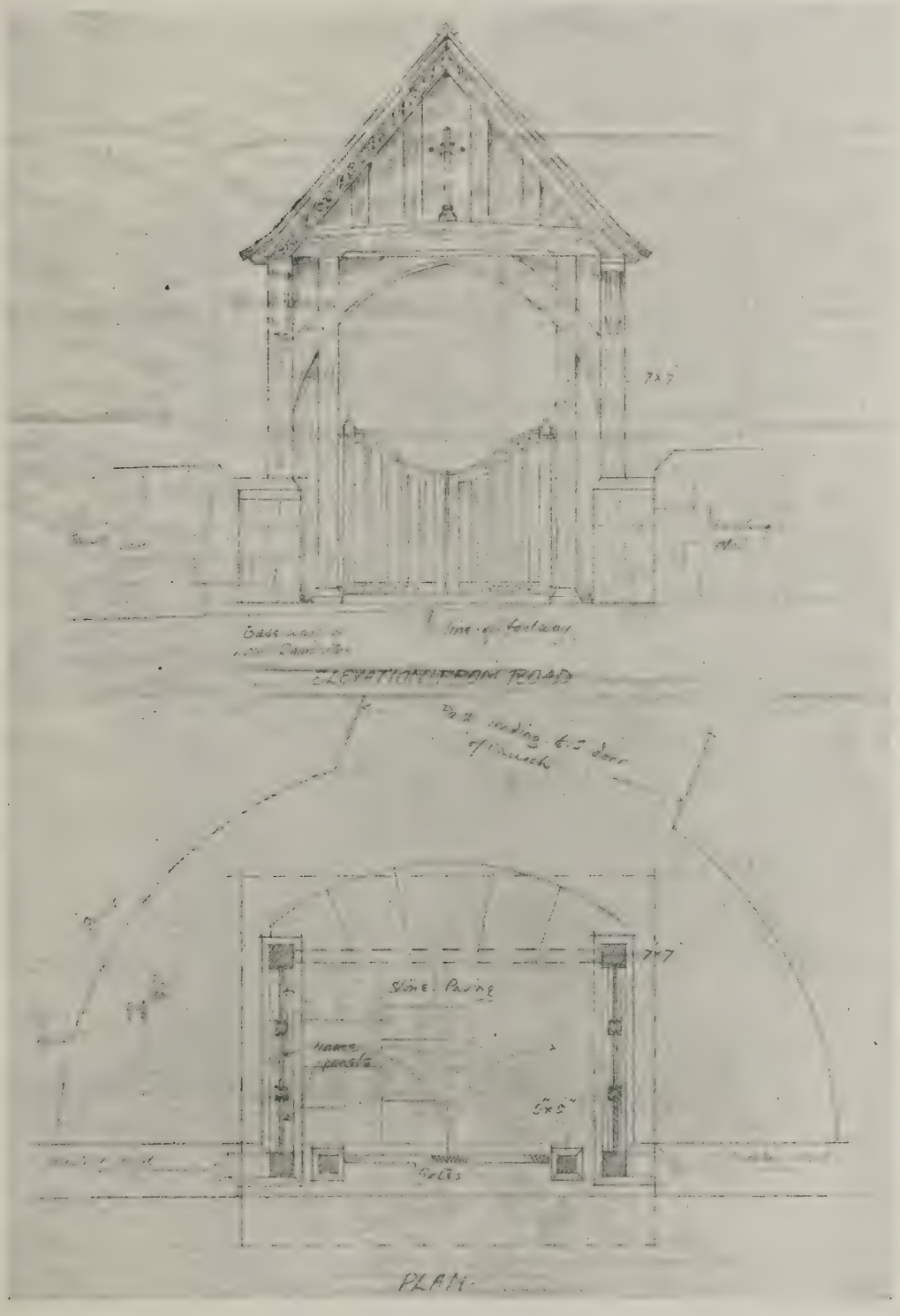
C. M. Oldrid Scott, Architect



This lych gate is made of English oak left from the saw. It stands on base walls of local sandstone, and is roofed with sand-faced tiles. The names of those commemorated (about 200) are incised on the inner face of the panels forming the sides. The work was carried out by Messrs. Strange and Sons, of Tunbridge Wells.

Current Architecture. 128.—War Memorial Lych Gate, St. James's Church, Tunbridge Wells: Elevation and Plan

C. M. Oldrid Scott, Architect



Some particulars of this lych gate are given on the preceding plate.

ɔme Suggestions on Architectural Education*

By ARTHUR J. DAVIS, F.R.I.B.A.

[AVE chosen architectural education s my subject, as I consider that, lthough this may seem at first a er mainly for professional specialists, nevertheless apparent that suggesby the non-teaching members of the ssion, who will view it from a broad ;ympathetic standpoint, may in the e be productive of useful reforms and ɔvement.

eat as has been the advance in many ·es of education in late years, there ɔe no denying that we are still a long from the "ideal."

e war has taught us that there is one road to successful achievement. painful years through which we gled to victory burnt into our minds act that our nation, although full of .ge, enterprise and adaptability, was ehind some of her allies and opponin organization and scientific efficiThis was in great measure due to inadequacy of her provision for al education. As an Englishman has been brought up on the Contin- I have some knowledge of foreign ms of teaching, and perhaps may be ed to say that we have been outıced by many other countries in this ;ular branch. It will be generally d that amateurish methods were in ast often considered sufficient to deal our national and particular prob- Character building and individual- ;ere encouraged in our schools at xpense of disciplined efficiency and ized study.

Individualistic Methods

years gone by when our nation was osed of small scattered communiıostly rural, governed by a feudal cracy, the ideal education was the ɔpment of the personal equation. ıan had to fill many parts. He was rns farmer, magistrate, soldier, and man, and could execute all these farious duties without being obliged ·cialize in any one of them. We are ust emerging from this period, and, ıer we like it or not, owing to the ıre of modern conditions and the h of our large manufacturing cenıre obliged to deal with masses of nity which must of necessity be lined and organized.

individual can no longer develop s own lines, he must sink his perty and accept State control, howlistasteful this may be, as the only ɔn of a problem which has grown th the rapid increase of the popula- This necessity was illustrated dure war, when individual preferences ɔ be subordinated to national discin order to achieve a common pur- Although much can be said for the ife of a hundred years ago, it is no oking back. For better or worse ust accept our present conditions f we may resent some of the restric- they impose. The day of the ur is past; slipshod methods must way to well-organized systems; al freedom even must be curtailed if preference is to be given to a more specialized outlook on life.

To-day, an individual can no longer successfully follow a variety of trades and occupations. In architecture specialization has made its appearance, although our profession is one which demands perhaps the most general knowledge of all. The combining of skill in the application of art with the management of a complicated practice covers such a large field that few of us, even after a life-time of study can claim to be more than on the threshold of the subject. No architect can cope single-handed with all the ramifications of his daily work, but is constantly obliged to call in specialists to elaborate the details of his designs, his duty mainly consisting of control and general organization. It follows that a system of education which is not based on well-organized lines can never produce results which will meet the demands of modern civilization.

In general criticism, I would like to mention, before dealing with the main problem of this paper, that in our profession instruction and training are not sufficiently within the reach of the poorer student, who, notwithstanding natural talent and ambition to achieve distinction, is unable to pay the high fees demanded by our technical schools and universities.

In countries such as the United States, France, Switzerland, Austria, Germany, a young man who has decided on a professional career and can show any marked ability for his subject, may feel sure that by hard work, economy, and concentration, he can, with only sufficient money to keep himself during his years of study, take full advantage of the best tuition his State can offer him, without paying anything for his professional education. The countries who have adopted this wise policy have realized that a good standard of education is one of the greatest assets a nation can possess.

Nowadays, higher education is no longer a luxury to be indulged in by a favoured few; it should be open to all and sundry, free of charge, provided each student, on being tested by examination, can show that he is worthy of the trouble and expense that the country is prepared to take on his behalf. In my opinion, the cost of maintaining the technical schools should be the first charge on the nation's finance as being the soundest investment for its future prosperity and greatness. I have known for some time that I should have the honour of addressing you on the subject of architectural education, and I have, therefore, made a point of ascertaining the general feeling of the profession and the views of practising architects, professors at the schools, and of the students themselves, as to the advantages and drawbacks of our existing systems.

Having graduated at the École des Beaux Arts, and being connected with the principal educational institutions of this country, I venture to suggest that my opinions on this matter are entirely unbiased, and in many cases are merely a reflection of the views which have been expressed to me by conscientious members of our profession. Therefore, any criticism I may levy at our institutions is inspired by the most friendly spirit and is uttered with a view to arriving at some conclusion which, I hope, will give rise to discussion and may produce some improvement in the future. I cannot, in the short time at my disposal this evening go into detail, but only propose to deal in a broad sense with this interesting subject.

Firstly, I would like to offer a very sincere tribute of admiration to the able leaders of our existing universities and schools, and we must congratulate ourselves on our good fortune in having at the present moment in this country a staff of professors second to none in their ability to guide the rising generation. The results achieved during the last decade are already bearing fruit. Architecture, as an art, is once more coming into her own after a long period of stagnation, and it is chiefly owing to these devoted leaders that our modern buildings show signs of refinement and taste, sadly lacking in those which were designed some twenty years ago.

It is not necessary to remind you that the old method of articles has died a natural death, and that the schools which now exist in London and our large provincial centres are giving the student a far more comprehensive and general knowledge than it was possible to attain under the pupilage system.

The Architect as Artist

In the period just referred to, architecture was considered mainly from the professional standpoint and, with few exceptions, the architect was looked upon as a business man and a constructional specialist, competent to deal with the numerous problems and difficulties of administration, construction and organization met with in the course of his daily functions. The power of planning and designing, as an artist, which we now recognize as being the most valuable quality, was in many cases considered of minor importance. It was not sufficiently understood that these artistic qualities could be developed by a sound education without coming into conflict with the other practical attributes, but, on the contrary, would form their most solid foundation. At the same time, a good case could be made out for this paternal method of instruction. One can picture the devoted apprentice trained under the protecting eye of his master, at work on his designs, ever ready to be guided by his wisdom and experience, so that, eventually, when the day arrived for him to leave the shelter of the parental nest, he was fully equipped to spread his own wings and to soar high in the profession which his mentor had adorned.

Unfortunately, there was a reverse side to this picture; in far too many cases the unlucky pupil, having paid a substantial fee, was never able to progress beyond the menial tasks, which the more senior office assistants disdained to perform. At the conclusion of his articles he was often astonished at his own ignorance of the most important principles of

*aper read before the Manchester Society of s.

his art, and had to his credit only the vaguest of notions of the work he had seen carried out in his master's office. This, together with a few tricks and architectural "stunts" were his sole stock-in-trade with which to commence his real apprenticeship. The narrow outlook which a young man was naturally inclined to take when working in this way deprived him of the power to understand the broader view, and generally speaking, unless he was fortunate enough to find a chief with a gift for teaching, a talent not possessed by all practising architects, he was naturally inclined to look upon the walls of his office as containing all the architectural wisdom of the world and to ignore that there was much to learn beyond their narrow limits.

The night schools supplemented to a certain degree the knowledge an articled pupil would acquire, but, in time, even these excellent institutions were considered insufficient, and eventually the architectural schools, as we now know them, came into being and gradually replaced the pupillage system altogether. However, I think the pendulum is now inclined to swing too far in the direction of theoretical training to the detriment of practical experience. In all educational establishments it is only natural that theory is preferred to practice, and the constructional and professional side, although dealt with, is necessarily only considered from a school standpoint.

The Modern Curriculum

The syllabus of our principal schools takes the novice through the various stages of design, and teaches him history, construction, and mathematics. His training now covers a maximum period of five years and, generally speaking, deals very adequately with most of the theoretical knowledge a young architect can acquire. I think the curriculum has been carefully considered and could only be altered with advantage in small details, but my principal criticism is that under the present system the school cannot and never will teach a young architect all that he should know. His greatest possible asset, practical experience, cannot be grafted on to a course of theory. Indeed, I venture to say that a sound office training is, in after life, the most valuable factor in an architect's career, and it is only when our system is so arranged as to enable the students to become familiar with practical work and simultaneously carry on their theoretical studies, that we shall obtain the best results.

It has been suggested that professional practice and office administration might be taught in the schools, but, when one remembers the hundred and one problems which face the architect in his constant dealings with clients, contractors, legal matters, correspondence, etc., I do not think it is possible to include this in any curriculum. This point has already been considered by all our specialists, and they have made an effort to deal with this point by requesting their students in the fourth and fifth years to put in part of their time in an architect's office—an excellent idea, but easier to formulate than to put into practice. Many of our leading architects have informed me that a fourth or fifth year student, although his knowledge of architectural theory and design may be advanced, it is of very little value compared to a trained assistant, and I see breakers ahead when the great number of students who are now entering the schools, arrive at this stage of their training and desire to enter an architect's office and be paid for their services.

It is usual for a beginner, before he starts on his own account, to spend a certain amount of time as an assistant, and we will therefore examine how far his school knowledge will fit in with the requirements of an average practice. Any architect worthy of the name naturally wishes to design in his own particular manner, and looks to his assistants to work out and detail, under his supervision, ideas which he personally may not have time to elaborate. They should not have to design or deal with the architectural composition, but content themselves with an intelligent interpretation of their chief's suggestions, and this faculty is the most useful attribute that an assistant can possess.

Some Weaknesses

In my opinion one of the fundamental weaknesses of our present school training is that, in order to pay their way and produce a satisfactory yearly balance sheet, the schools are obliged to charge the students comparatively heavy fees and to accept, for financial reasons, young men who have no special ability and who will never become architects of any standing. It is common knowledge that the profession is over-crowded, and yet we see that increasing numbers of students are entering the schools, although it is well known that a large proportion have neither the vocation nor the necessary qualifications to make successful careers. On the other hand, there must be many others with great possibilities who are prevented, owing to lack of funds, from entering a profession in which they might eventually distinguish themselves.

It would appear that for the good of architecture a large number of students is not the ideal, but that a selection chosen for their capabilities would be preferable, regardless of any question of their financial status. At present this ideal cannot be achieved as the cost of upkeep of these schools is very high. It follows that a large number of students, paying a considerable amount in fees, is absolutely essential satisfactorily to balance the yearly accounts. Even so, it is found necessary to obtain extra financial assistance through all kinds of mediums, some of which are hardly consistent with the dignity of our profession.

I believe experts maintain that higher education cannot possibly be run on profitable lines, and that students' fees should never be such as to cover the cost of their education; in other words, that outside subsidies should be forthcoming to supplement the revenues obtained from the students themselves.

Although the curriculum in the schools has been extended from three to five years, and the subjects taught have been considered with great care and discrimination, these are so numerous and cover such a wide field that the period allotted to study is insufficient, especially if it is taken into consideration that a larger proportion of the students' time during the last two years is presumed to be spent in an architect's office. The haste with which a man is rushed through the many fields of instruction savours somewhat of cramming, and although nowadays t fashion is to speed up, yet I think th he should be given opportunities to exte his studies over a far longer period shou he consider it desirable. The useful wo done by the schools has been recogniz by the R.I.B.A., which bestows the ti of "Associate" on students who ha completed their fifth year, provided th pass an examination in professional pra tice. This is an excellent innovatio but it still remains to be seen wheth their work will come up to the A.R.I.B.A. standard, and many thinki members of our profession have express serious doubts on this score.

Now, gentlemen, I know all t sounds very much like destructive cr cism. It is so easy to throw stones people who are doing their best to tra and educate the young idea, and critici of this sort is all the more difficult deliver when it is aimed at young ins tutions which have already proved th they fully justify their existence, a show in many respects an advance past conditions. However, if it is agre that my remarks are in a measure jus fied, it will, no doubt, be asked : Can th conditions be improved ? How are t difficulties to be overcome ? And in wh way can these objections be met ? I w take my criticisms *ad seriatim* a endeavour to show how they might answered, although I fully realize th some of my suggestions may appear volutionary and embody drastic reform

The Question of Fees

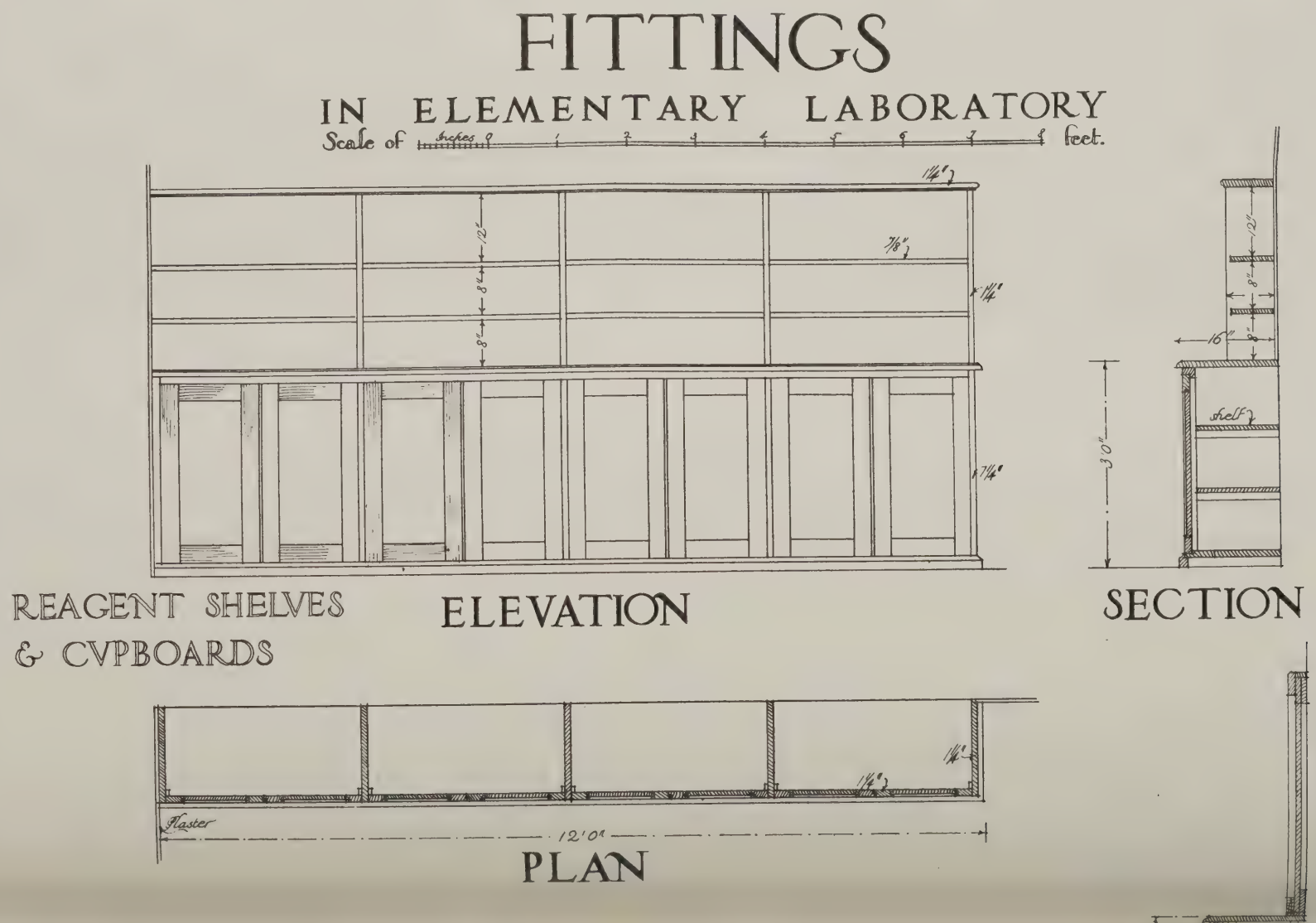
Under the first heading we find you men possessing insufficient natural abil admitted into the schools for financ reasons, and the exclusion of potent students of merit who are unable to b the high cost of training. Under second, that insufficient opportuniti are afforded to students of acquir professional knowledge during th period of training, with the consequ divorce of theoretical and practi instruction; also that the time allowed the schools for the covering of the w large field of study is insufficient. W regard to the first objection, I suggest th it would be policy to make the scho practically independent of students' fe This advantage can only be attained the granting of subsidies, either from State or from other sources. It may, first glance, seem a difficult problem solve, but I would point out that t system has been in operation on the C tinent for a considerable number of yea where all the higher schools are suppor by the State, who pay the professo salaries, for the upkeep of the spec buildings, libraries, museums, etc., gether with their technical equipment

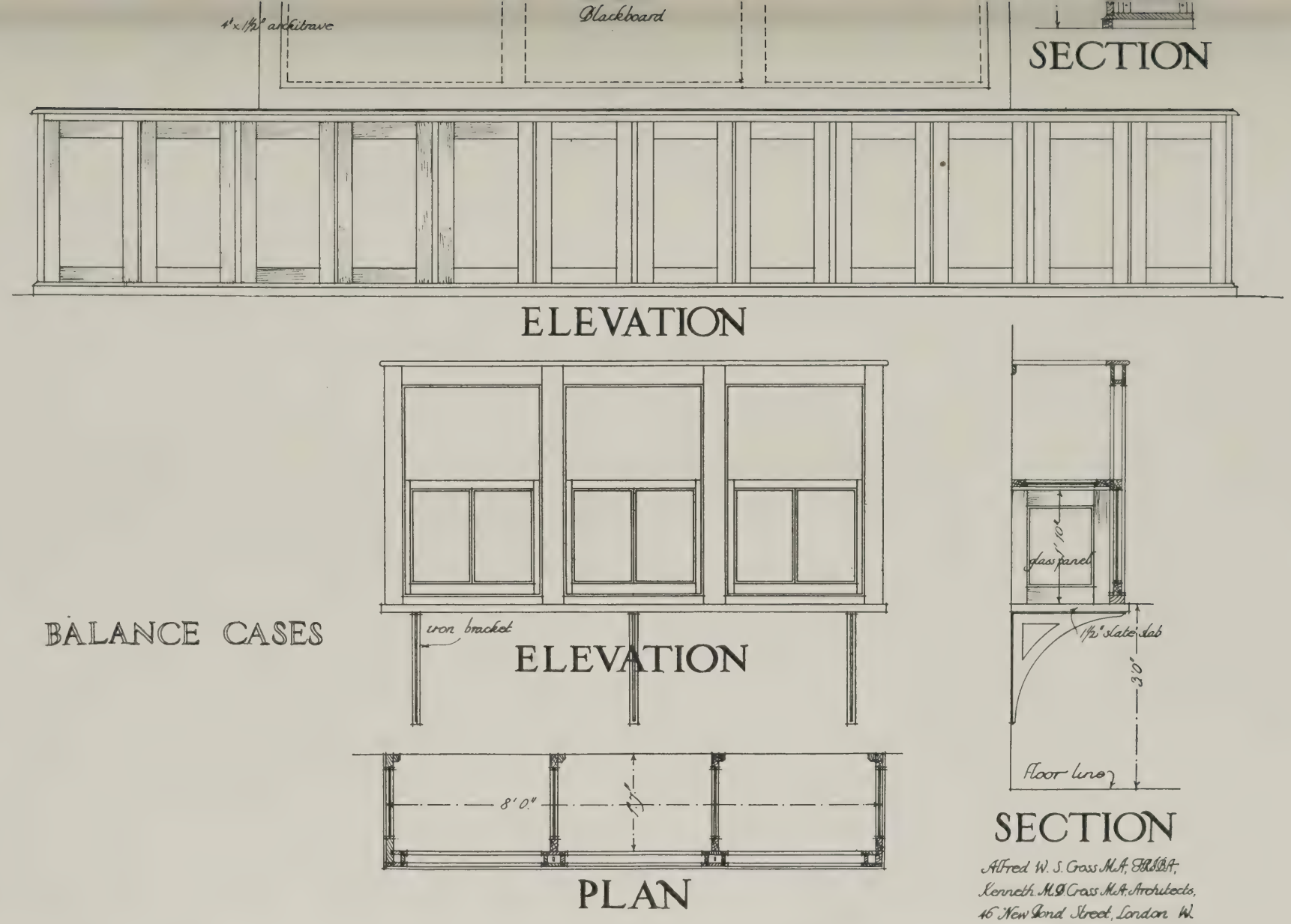
Abroad, any student with a natu talent has the best possible educatio ability of the country at his dispos If I have laboured this point, may I excused on the grounds that my rema are merely a plea for the encouragem of the unknown, poverty-stricken gen Many people who have a knowledge establishments controlled by the St will be inclined to object to this pol on the score that it necessarily invol interference and numerous visits fr officials who may possibly prove a h drance to the smooth working of system, and may oppose or delay inno tions with which they are not in sy

Practical Notes for Architectural Draughtsmen (Series II) Technical Schools and Science Buildings.

10.—Fittings in Elementary Laboratory

A. W. S. Cross, M.A., F.R.I.B.A., and Kenneth M. B. Cross, M.A., Architects





The above drawing shows a range of cupboards for an elementary laboratory, with a blackboard over, together with a combination of shelves for reagents, with cupboards below. Further particulars are given on page 629.

I know that in this country at t these fears are well-founded, but : point out that this kind of super- is not really a necessary adjunct te aid. For instance, in France, gh the nation foots the bill, it ts a Minister of Fine Arts, a man e views and broad sympathies, to l the work of technical schools milar institutions.

The Beaux Arts Policy

he Ecole des Beaux Arts it has been necessary, by experience, to ensure before any student is allowed to to the school he should have passed severe test, the purpose of which is de the sheep from the goats. From tart the undesirable student is ated. If he were admitted he only fall out during the latter years ning, after having occupied valuable and wasted his own and his pro- time. At present I fear that all chitectural schools shelter too many type of man, who is accepted for ancial support he brings, and I am ed that already professors are being d by demands from such of these re students who have finished their g and find themselves unable to work. Our profession is over- d, and although there is always t the top for the brilliant student ill eventually find scope for his , the masters are quite unable to reers for the many others of in- nt ability who are turned out under the present unsatisfactory . In time these men become ing of a danger to the profession— ny of them, failing to obtain work itects' offices, drift into acting as tsmen for firms of specialists, who us enabled to produce inferior which compete with work which be entrusted to a capable architect.

The Examination System

quite aware that the examination is not ideal for ascertaining the dge of all candidates, and that it disadvantage of sometimes elimi- aspirants of real merit who do not the knack of passing these tests, present no better method seems e been arrived at. In any case, rely safer to test a man's know- y examination rather than by a ce to his banking account. At the des Beaux Arts, an institution as been successfully carried on for wo hundred years, an entrance ition covering many subjects is ice a year. Four to five hundred tes enter for this competition at ession. Only the first fifty are d, among whom are a small per- of foreigners. The rejected often themselves again and again, but cannot pass this preliminary test, op out automatically, and never ne profession at all. The advant- bvious, the standard of the school high and it is ensured that the l which the professors will have on will be worthy of their efforts.

I now try to answer my second n, which had reference to the ent opportunities for the student in practical experience and the time allowed for the vast of subjects for him to master. pinion it is a mistake to divide erent stages of education in the schools into a term of years. We hear of first, second, and third year students, which means that the knowledge acquired during the various terms spread over a definite period, involving the constant attendance of the student. I suggest that the curriculum should be extended over a much longer period and arranged in terms of advancement rather than of years. All students after they have attained a certain proficiency and passed preliminary tests, should be allowed and encouraged to work in offices, travel, or to acquire architectural knowledge by other than school methods. It should be possible for them to work for an architect and only enter for school competitions when they have time at their disposal, and no penalty should be attached to this procedure. The authorities would define the minimum amount of school work to be produced each year.

Aid for the Architect

It may be safely stated that in every office there are busy and slack times, and during the latter, the permanent office staff can adequately cope with the work. When there is extra pressure, it would be greatly to the architect's advantage, could he call upon the schools to provide him with help for competitions or any special jobs with which his usual staff are unable to deal. Work of this nature should be paid for by the day or the hour, and the student would thus be enabled at least partially to earn his living, while at the same time pursuing his studies. At the present time this is impossible as every student must follow each step of the school curriculum. If he drops out, even for a short period, his whole career may be affected. It is admitted that a man adopting this course would take longer to finish his theoretical education, but the advantage, to which too great importance cannot be attached, is that during his school years the student thus comes into direct contact with the elder members of his profession. He could follow the various ways in which their offices are conducted and acquire experience which should be invaluable to him in after life.

In England there may be objections, although I do not think there is any insuperable difficulty in adopting the foregoing suggestions. They have been in practice for generations in France, where some students take four years to complete the course and others as many as ten. There it is recognized that the man who takes longer over his training is not necessarily a backward student, and that no school, however efficient, can impart all the knowledge required in architecture. It is also appreciated that intensive culture in the end rarely produces the best results. It is believed that a student should be encouraged to organize his own life, and so long as he produces a sufficient quantity of work to justify his retention in the schools he is in every way permitted to develop on his own lines.

There are in England a great many trained assistants, whose ages range from twenty to thirty years, who might with advantage be brought into the proposed broadened scheme. They are expert men, but in many cases lack the finished theoretical training only obtainable in a good school. The technical classes, ateliers, and evening schools deal within certain limits with this man, but the matter goes deeper and is really beyond their scope. The architect's assistant would be as much helped by a theoretical training in the schools as students at the schools would by a term spent in an architect's office. I know that in a short paper it is impossible to cover all the ground of this very important and essentially modern subject, and, if one could go into details, a great many minor points could be discussed with advantage.

I am fortunate in numbering among my personal friends a great many of the leading professors and teachers in our schools, and I would like them to realize that these criticisms are not levied against them personally. In my humble opinion, the work they are doing at the present moment is the foundation of a system of education, which, when broadened and co-ordinated, and, if I may be allowed to use the word, democratized, will produce in a few years architects who will have had advantages which were not obtainable by their predecessors. One must admit, however, that the principles of our educational systems demand considerable changes before they can be considered really satisfactory. I realize that I have chosen a very controversial subject, but if my arguments give rise to a discussion, my object will have been achieved.

If we are to obtain the successful results which ought to be our reward, we must approach these questions with an open mind, realizing the advantages as well as the drawbacks of our present institutions. We must not be prejudiced nor ashamed to go to other countries for useful comparison, neither should we be afraid of hurting the feelings of some, who with the best intentions in the world are leading us away from the main issues. I am sure that, in time, when our school traditions have matured and our general system of education improved, the enthusiasm and energy which are now being put into the cause will unquestionably reach a result worthy of our efforts.

Details of Science and Technical Buildings

Recommendations of a general nature with regard to the situation and planning of elementary laboratories have been made by the Board of Education, who also suggest that considerable cupboard space should be provided wherever possible, and that numerous shelves and lockers are desirable. Two or more blackboards are required for the teacher's use. In the example given on pp. 626, 627—the tenth of the drawings of science and technical buildings which have been specially prepared by Messrs. Alfred W. S. Cross, M.A., F.R.I.B.A., and Kenneth M. B. Cross, M.A.—a range of cupboards is shown with a blackboard over, together with a combination of shelves for reagents, with cupboards below. The blackboards, of which all students should be able to obtain an uninterrupted view, should be placed as near as possible to the demonstrator's table. Where there is no separate room set aside for balances, special shelves, preferably of slate or stone, should be provided. In the example given the balance shelves are surrounded by glass panels 1 ft. 10 in. high, and are accessible by means of small glazed sash windows.

Construction. 22.—Steelwork of a Mode Office Building

A CITY office building forms a good example of the adaptability of the modern steel-framed structure to the requirements of the architect. Factory buildings, being usually erected on open sites, require little more than support for the floors and roof and the provision of a maximum amount of light, and open space for working. Offices, built as they often are on confined sites, surrounded on all sides by existing buildings, present, with the legal demands for the provision of light and air, and the questions of access to adjoining properties and so forth, a much more complicated problem, in which the difficulties and chief interests lie, firstly, in the foundations, and then in the roof. The intermediate floors usually are uninteresting on account of the light loads to be carried, and the similarity of the arrangement made to secure economy in erection and to provide the maximum rentable space.

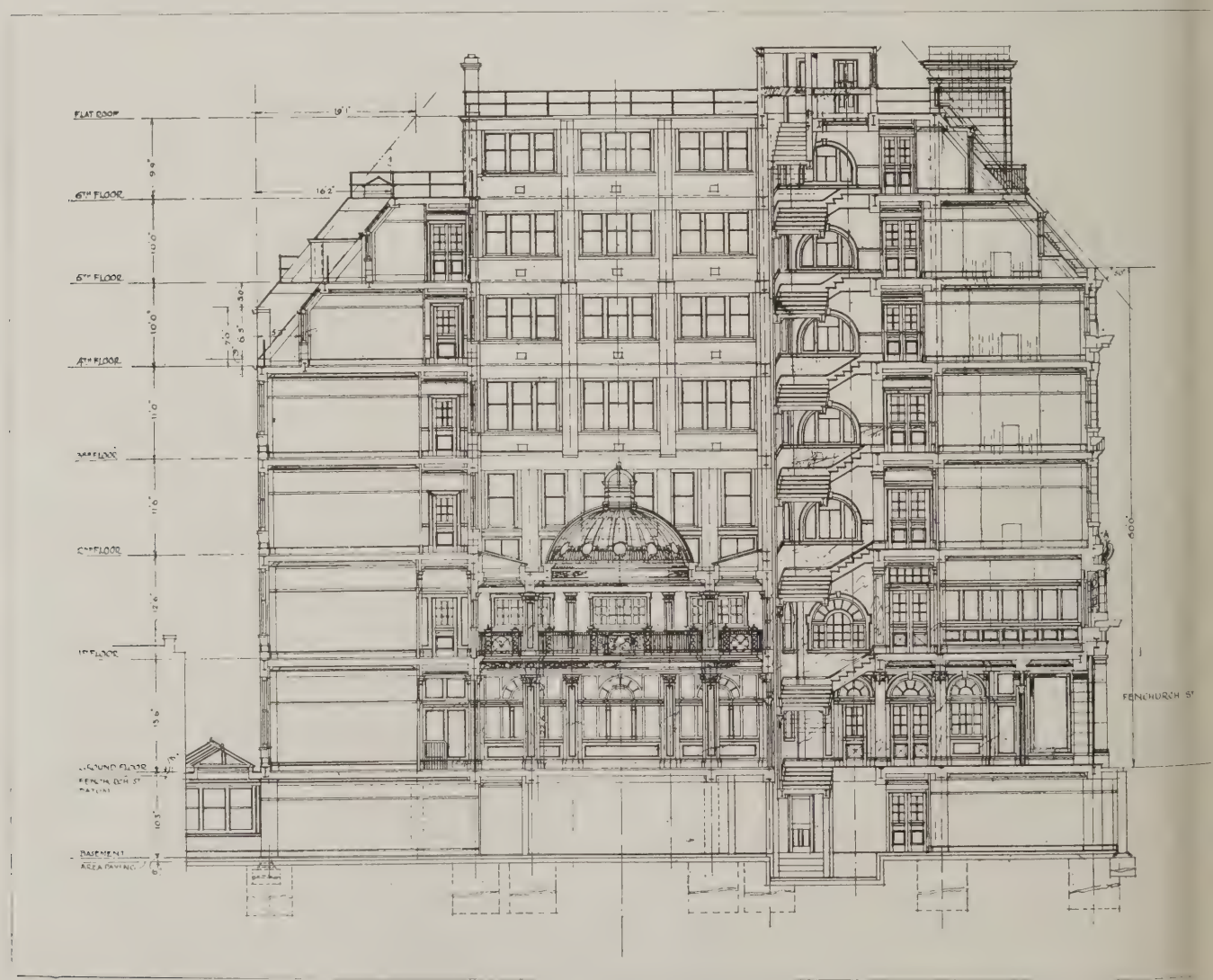
The example illustrated, the design of Mr. Edgar Stones, with whom Messrs. Whitaker Hall and Owen acted as consulting engineers, although not presenting any great difficulties, shows in a very typical manner all the points mentioned above (see Fig. 1). The site consists roughly of two rectangles. The smaller has a frontage to Fenchurch Street, and the larger lies at an angle with the first, and has a public frontage at one end to Ironmonger Lane, and private frontages to surrounding houses and party-walls on the other two sides.

Where stancheons stand against the street or public passage plain grillages are used, the same method being adopted for the lighting areas on the north-west and north-east sides. But where the building abuts against existing buildings cantilever foundation or combined grillages have been used.

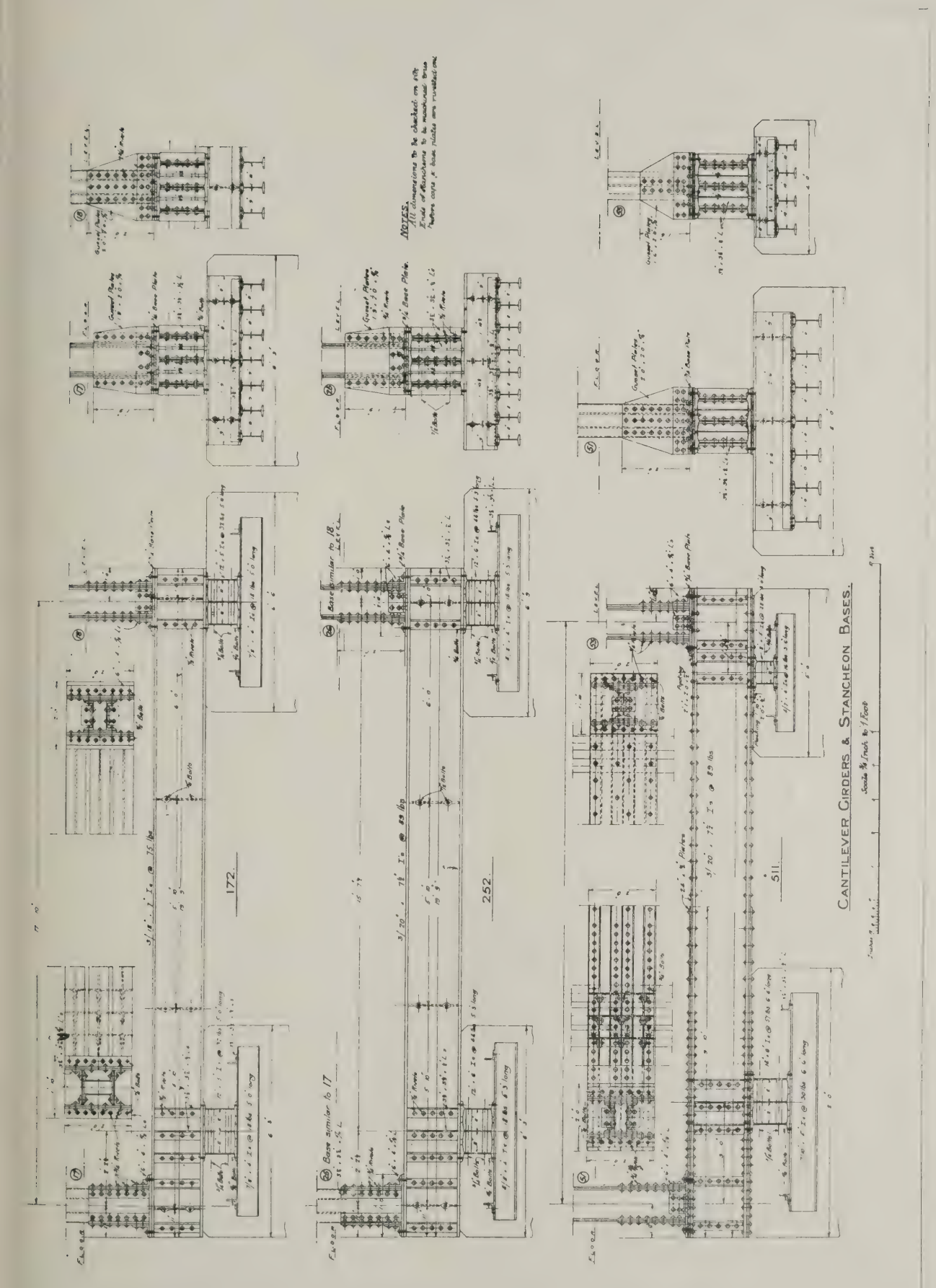
In designing a building such as this, it must not be forgotten that every eccentric load on a stancheon has its effect on the stancheon base. Cantilever foundations, apart from their usefulness in keeping the grillage back from the boundary line, are of advantage in bringing the stancheon more directly under the load to be carried, thereby reducing the effects of eccentricity of loading, the conse bending in the stancheon shaft, an uneven loading of the base and dation. The basement is gen 10 ft. 3 in. below pavement level, a a depth very little below this good b was found covering the whole site. cavation for the stancheon found was therefore not very expensive. gravel was found, on boring the well in the centre of the site, to be 22 ft. thick, with about 2 ft. of in the bottom. Fig. 2 gives typic tails of canti'ever girders and stan bases.

The stancheons generally were b two R.S. channels, with flange pla the lower lengths, changing to joists with flange plates in the upper In the centre of the building, ho architectural demands for small s columns at the first floor led to the tion of solid steel columns, as sho Fig. 3, in order to save room and g steelwork efficiently covered by th crete casing and marble.

(To be concluded.)



1.—SECTION THROUGH CITY OFFICE BUILDING. EDGAR STONES, ARCHITECT. WHITAKER HALL AND OWEN, CONSULTING ENGINEERS



2.—CANTILEVER GIRDERS AND STANCHEON BASES IN A NEW CITY OFFICE BUILDING.

R.I.B.A. Council Meeting

At the last meeting of the Council of the R.I.B.A. the following business was transacted :—

New Allied Society.—The Norfolk and Norwich Association of Architects was admitted as an Allied Society of the R.I.B.A. under the provisions of By-law 78.

Fees for Housing Work.—On the recommendation of a joint meeting of the Practice Standing Committee and the Committee of Housing Architects, it was decided to summon a special general meeting to consider the proposals of the joint meeting for resuming negotiations with the Ministry of Health.

Exhibition of Designs.—It was decided that an exhibition of designs of those candidates from the "recognized schools" claiming exemption from the Final Examination under the new conditions be held in the middle of July each year, and that a special meeting of the Board of Architectural Education be held for the purpose of inspecting the designs.

Examinations in India.—It was decided to hold the Special War Examination in Bombay for the benefit of candidates residing in India.

The London University School of Architecture.—On the recommendation of the Board of Architectural Education it was decided to recognize the five years' Diploma and Degree courses of London University as exempting from the Final Examination of the R.I.B.A. on the usual conditions.

Retirement of R.I.B.A. Officials.—The following resolution was ordered to be entered on the Minutes : Resolved that the Council of the R.I.B.A. do hereby place on record their deep appreciation of the loyal and devoted service rendered by Mr. H. G. Tayler and Mr. George Northover during their long connection with the Royal Institute.

The South Wales Institute of Architects.—The new rules of the South Wales Institute of Architects were approved.

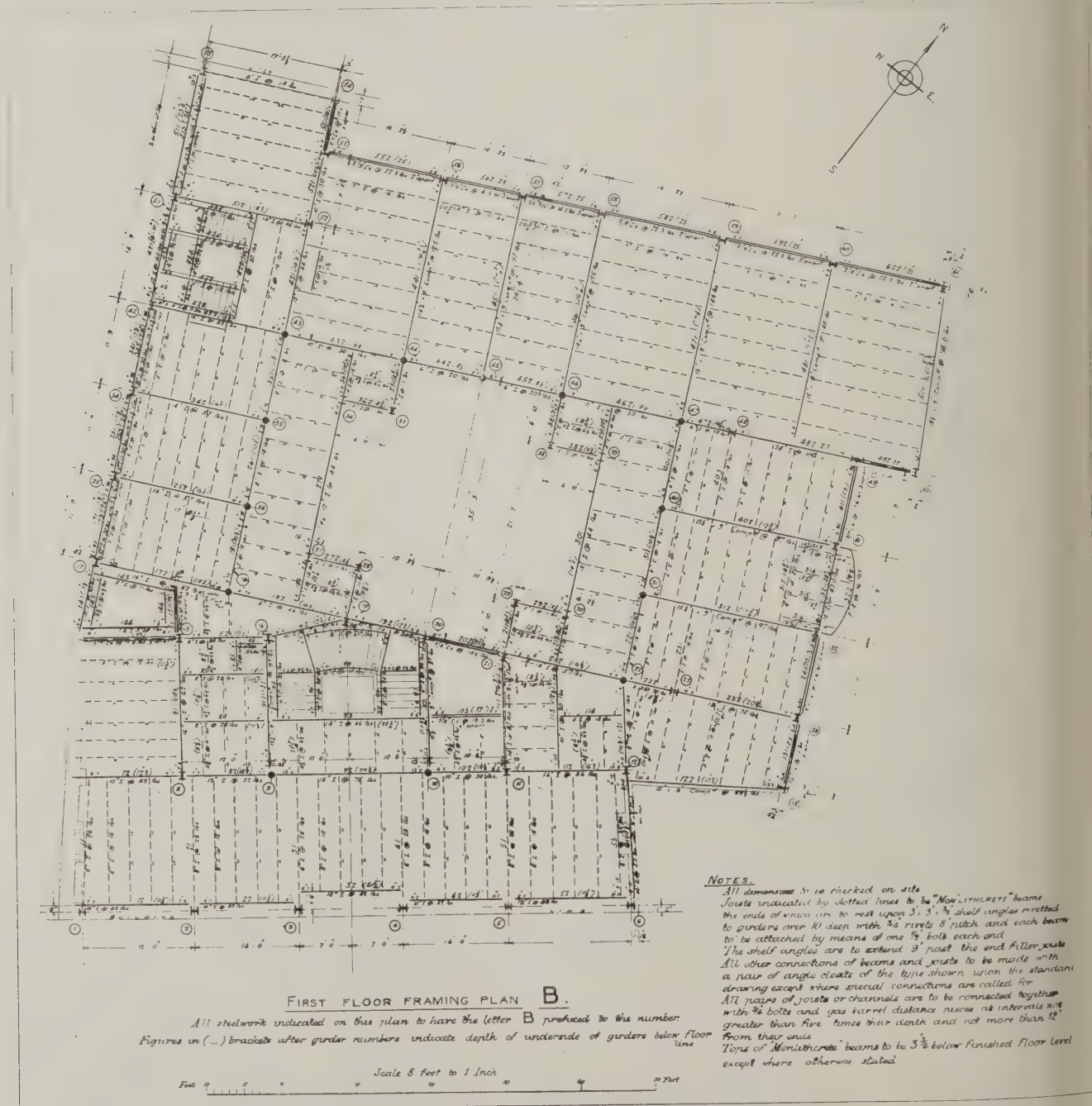
Statutory Examination for District Surveyors.—Mr. H. R. Chanter was granted a certificate of competency to as District surveyor.

Membership.—The nominations of candidates for the Fellowship and candidates for the Associateship were approved.

Architects' and Surveyors' Assistants Professional Union.—It was decided to make representations to the Ministry of Labour in support of the claims of the Union in the matter of unemployed assistants.

Iron Portland Cement.—Mr. H. Searles-Wood was appointed to represent the R.I.B.A. on the Iron Portland Cement Sub-Committee of the British Engineering Standards Association.

The Registration of Electrical Contractors. — Mr. Alan E. Munby was appointed to represent the R.I.B.A. on the committee representative of the Institution of Electrical Engineers, Electricity Supply Undertakings, Electrical Contractors, and Electrical Manufacturers, to enforce a national standard of wiring rules.



3.—FIRST-FLOOR FRAMING PLAN OF NEW CITY OFFICE BUILDING. (*See preceding pages.*)

Law Reports

Town Planning Act

Ryall v. Heath and others.

Nov. 9-10. King's Bench Division.
Before Justices Darling, Sankey, and Branson.

s case of Mr. Fredk. Ryall, town of the Borough of Bermondsey, st Messrs. H. Cubitt Heath, Sidney Heath, Harry Brown, and Frank r Smith, raised an interesting point the Town Planning Act.

. Travers Humphreys said this was peal by way of a special case stated the decision of the Metropolitan Magistrates sitting at the Tower e Police Court, who dismissed a er of summonses taken out at the ice of the Borough Council of Bersey, for whom he (counsel) appeared who were the appellants here. The ionses were taken out against the s of a number of houses in the dis-

The respondents were owners, n the meaning of section 28 of the ng, Town Planning, etc., Act, 1919, me 500 houses to which the pro-s of the Act applied. Between ry 1, 1920, and April 2, 1920, the il served each of the respondents notices requiring work to be done to n of the houses in Ernest Street, ondsey. On April 23 a consider-number of the notices had not been ied with, and the Council then l them with notices requiring the to be executed within 21 days. The dents did not comply with those s, and thereupon the Council, pur-g to act under sub-section 2 (a) tion 28, executed the work them-. On November 15, 1920, the il served 23 demands on the re-ents for the expenses incurred to a of £623, and in default of payment, onses were taken out to recover the ses incurred, and the complaints eard in March 1921. At the hear-e respondents resisted the claims e ground that the notices did not le a reasonable time for the execu-f the work.

behalf of the Council it was con-l that the question of the reason-ss of the time specified in each of tices was not a matter for the juris-n of the magistrates, that the Legis-had, by the wording of the Act, entirely to the discretion of the uthority, and that the reasonable-f the time specified in a particular must depend on the work that had done. The magistrates held that spondents could not by any reason-ffort or diligence have complied with tices, and that the period of 21 days ed in the notices was not in all the stances a reasonable time, that the s were invalid, and they consequent-nissed the complaints. The matter ame before the Court on a question ther this decision was a correct one the facts in point of law.

Eustace Hills, K.C., argued the n behalf of the respondents. He tted that with regard to the 21 notice these were not orders under al of the authority, nor were they rticated by the signature of the uthority's clerk. It was proved that some £100 per week was being expended by the respondents during the period of the earlier notices, who were then employing some 20 odd men every week. In all the circumstances he contended that the decision of the magistrates was correct.

Mr. Justice Darling, in giving judgment, said it seemed to him that the magistrates were bound to inquire whether the 21 days in the notice was a reasonable notice. The local authority apparently took longer than 21 days to do some of the work themselves. If the respondents had been ordered to do the work within 21 days they would have been ordered to do something that was physically impossible. His Lordship said that the magistrates were justified in taking evidence to ascertain how long the work was likely to take, and, having done that, they came to the decision they did. In all the circumstances their decision was the right one and the appeal failed.

Mr. Justice Sankey and Mr. Justice Branson concurred, and the appeal was dismissed with costs.

Dilapidations—Jurisdiction

Delaforce v. Johnson.

Nov. 4. King's Bench Division.
Before Justices Horridge and Shearman.

This was an appeal by the defendant, Miss Lilian C. Johnson, against a judgment of the Deputy Judge of the Winchester County Court in favour of the plaintiff, Miss Delaforce. Mr. Bowen Rowlands appeared for the applicant and Mr. Micklethwaite for the respondent.

Mr. Bowen Rowlands said his case was that the Judge made an order in favour of plaintiff, Miss Delaforce, either without jurisdiction or in excess of his jurisdiction. The circumstances were as follows: In 1916 defendant and plaintiff entered into an agreement for the lease of a house in Ennisdale Road, Bognor, at a rental of £65 a year, and the claim was for £38 for dilapidations. Plaintiff, under the covenants of the agreement, was to keep the premises and fixtures in good condition and deliver up possession in a similar condition. Defendant stayed in the house for five years, paying the rent, and was then summoned for waste. Counsel's contention was that the Judge had no power to entertain this action for breach of contract to keep the house in repair, and the agreement was void by statute law. The value of the house was £1,800, and directly the Judge heard that, he should have remitted the case to the Chancery Division, as it was beyond his powers in equity to deal with.

Mr. Micklethwaite submitted that the Judge below had power to deal with the case and decide as he did in favour of the plaintiff.

The Court dismissed the appeal.

Mr. Justice Horridge, in giving judgment, said it was contended here that the document was merely an agreement for a lease for a period which ought to have been executed by a deed, and, further, because the property was worth more than £500 the Judge had no power in equity to exercise jurisdiction. He thought these points did not apply here, and the appeal must be dismissed with costs.

Mr. Justice Shearman concurred.

Devonshire House Site

Bentley v. Holland, Hannen and Cubitts, Ltd.

King's Bench Division.
Before Justices Horridge and Shearman.

This was a motion by the plaintiff to set aside an award made in arbitration proceedings in the case of Bentley v. Holland, Hannen and Cubitts, Ltd. Sergt. Sullivan, K.C., and Mr. Storry Deans appeared in support of the motion, and Mr. Lewis Thomas, K.C., and Mr. Giveen for the defendants.

Sergt. Sullivan, in opening, stated that the arbitration was one in which a whole action in the King's Bench Division was referred to the arbitrator (Mr. T. Matthew), and referred to the commission on the sale of the Devonshire House site, Piccadilly, W. Plaintiff represented to the defendants that a Mr. Sibthorpe was the possible purchaser of the site of which the defendants were the owners, and that Mr. Sibthorpe was a man of large resources. It was agreed between the parties that if Mr. Sibthorpe should become the purchaser, plaintiff should receive commission for having introduced him to the defendants. The amount of the commission was to be a proportion of that payable to Mr. Stanley May (May and Rowden), the authorized agent to the defendants, and Mr. Hannen, acting for the defendants, promised to make an arrangement as to the division of the commission on March 29, 1920. Mr. Sibthorpe, with another gentleman named Barley, entered into an agreement to purchase the site for £1,050,000, and paid a sum of £50,000 as deposit, in April 1920 paying a further sum of £100,000. Defendants paid plaintiff in April 1920 £1,200 commission, pending the arrangement with Mr. Stanley May, but plaintiff's case was that no such arrangement was made, and that he was entitled to a larger share in the commission than had been paid him. The arbitrator, in his award, said there was nothing more due to the plaintiff from the defendants than the amount already paid. It was contended, on behalf of the plaintiff, that the award was bad on the face of it, and there was inconsistency in the findings.

After a lengthy legal argument their lordships conferred, and Mr. Justice Shearman said he regretted he and hi learned brother disagreed as to the result. The agreement was capable of more than one construction, but the result, to his mind, was that no arrangment was made between Mr. Hannen and Mr. May, or was agreed as to the division of the commission. He (his lordship) should have sent this back to the arbitrator asking him to make certain definitions in his findings.

Mr. Justice Horridge said he was sorry they did not agree, but the only finding of the arbitrator being that the plaintiff had no right of action, induced him to support the award. The result of the difference of opinion would be that the motion would stand, and that the award would stand.

R.I.B.A. Permanent Staff Appointments

Mr. H. Godfrey Evans, B.A. (Cantab.), has been appointed assistant secretary of the R.I.B.A., and Mr. James Haynes, B.A. (Oxon.), has been appointed secretary of the Board of Architectural Education.

Mr. Evans, who is in his twenty-ninth year, was born in Buenos Ayres, and educated at King Edward VI School, Norwich, whence he proceeded to Cambridge as a Classical Exhibitioner of Queen's College, where he obtained his degree with Second Class Honours in the Classical Tripos, Part I. Mr. Evans played for his college at Rugby football and cricket and in the Freshmen's match at Hockey. After training with the O.T.C. at Cambridge, Mr. Evans obtained a commission in the R.A.S.C., and proceeded with the 21st Division to France in September 1915. Transferring to the Rifle Brigade, he was attached to the 3rd Battalion, and when that unit was associated with the 8th Royal Surrey Regiment in the memorable defence of Le Verguier, on March 21, 1918, he was wounded in the abdomen, after which date he saw no further active service.

Mr. Haynes, who is in his twenty-third year, was educated at Merchant Taylors' School, and in 1916 he obtained fourtieth place out of 1,000 candidates in the Army Entrance Examination for Sandhurst. He was for some time at the Royal Military College, and later, preferring artillery work, passed through the First Artillery Cadet School and obtained his commission in 1918. He was then posted to the Royal Horse Artillery at Woolwich, and afterwards served for some months in France in the 7th Brigade Royal Horse Artillery, First Cavalry Division. On demobilization Mr. Haynes proceeded to Hertford College, Oxford, and graduated as Bachelor of Arts in 1921 with Honours in the School of Jurisprudence. He identified himself very fully with the life of the University, and rowed in his College Torpid for one year, and in his College Eight for three years, and was also tried for the 'Varsity Eight.

Professional Classes Aid Council

It is satisfactory to learn that the Professional Classes War Relief Council, which rendered such valuable service to thousands who were suddenly deprived wholly or in part of the means of livelihood by the war, continues its activities. Under its new title, "The Professional Classes Aid Council," this organization carries on its task of alleviating distress among those to whom the appellation "the New Poor" is fitly given. During the six and a half years, 12,000 applications were investigated and dealt with. The first thing started was a maternity home in a house in Princes Gate, generously lent by Mr. Pierpont Morgan, which also served as offices for the whole of the work of the Council. Education assistance was next organized. The total number of children thus aided between November, 1914, and March, 1921, was 885; the help being continued in some cases for four or five years. The total sum expended on schooling during six and a half years was £34,000.

The war threw out of employment a large number of singers and other musicians. Hospitals, munition works and camps called for entertainment. By skilful organization the Music in War-time Committee of the Council were able to find employment for the musicians and benefit the hospitals and other institutions at the same time. Four thousand six hundred and ninety concerts were given between January 1, 1915 and August 1, 1919 (an average of three c certs a day), £25,000 from the joint fu of the Professional Classes War Re Council and the Music in War-time C mittee being paid to several hund musicians during that period in fees travelling expenses.

The influence of the war on the fessions is far from being at an e Hundreds of professional men and wo will not recover from its effects for ye Many have been ruined beyond hop recovery. To consider the problem presented conferences were held with numerous societies interested in professional classes, and in accorda with resolutions unanimously adop at the last conference the Professi Classes War Relief Council was recon tuted and renamed the "Professi Classes Aid Council." Its function widened to include applicants wh distress is due to causes other than war; and to entitle it to assist, in addi to professional men and women and t immediate belongings, others, who birth, education, or connections, properly be regarded as of the pro sional or highly educated classes.

It is not intended that the new Cou should supplant any benevolent i organized to deal with a particular fession.

Among the professions which h been or are being assisted are includ actors, architects and surveyors, art authors and journalists, barristers solicitors, civil servants, doctors, e neers, members of the stock excha ministers of religion, musicians, sch masters, teachers, and governesses.

One feature of the Council's recor a scrupulous regard for the feeling applicants. Care in this respect, w is not incompatible with the r thorough investigation of facts, is es tial to success. The offices of the fessional Classes Aid Council are no 251 Brompton Road, S.W.3.



MR. H. GODFREY EVANS, B.A.



MR. JAMES HAYNES, B.A.

NEW MEMBERS OF THE R.I.B.A. PERMANENT STAFF.

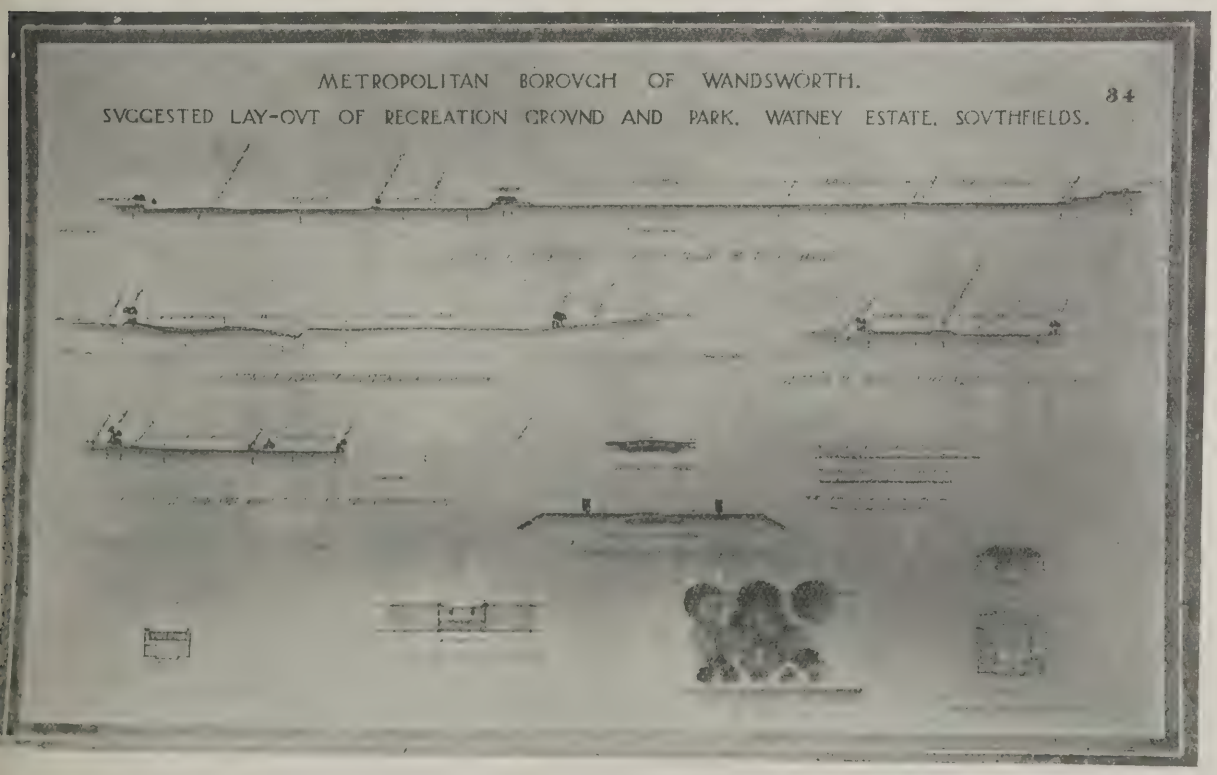
The Building Trades Parliament

second days' proceedings of the rial Council for the Building Indus- rked distinct progress, inasmuch as two definite decisions were reached. versy still raged around the Re- f the Management and Costs Com- , but the eternal principle of give ake found supporters, fortunately, h sides. Mr. Foster's resolution, in tly modified form, received the of the meeting. As finally passed, it was to the effect that "The National adherent bodies of the Council be requested to summon general meetings of their members to discuss the proposals of the Management and Costs Committee regarding unemployment insurance, and to take such other steps as they may deem wise in order to obtain the most favourable consideration of the principles involved in the scheme."

In the afternoon Mr. H. E. Blain, C.B.E., Hon. Sec. of the British Industrial "Safety First" Association, gave an address on its work and methods. Tracing the history of the Safety First campaign from its beginnings, he told how it had at first dealt solely with traffic accidents. Its policy of posters, slogans, and competitions had met with instantaneous success, and the work had been extended to industry. Heavy annual financial loss through accidents, quite apart from the horrors of death and disablement, showed how necessary was the work of the Association, and Mr. Blain urged the Building Industry, which had hitherto stood aloof, to give its support to the movement.

The Report of the Education Committee was also received, and the Committees for the following year were elected.





WATNEY ESTATE LAY-OUT COMPETITION, WANDSWORTH: FIRST PREMIATED DESIGN.
BY T. R. SOMERFORD, A.R.I.B.A.

Picture Exhibitions

The Exhibition of Armenian Architecture

Just opened at the Victoria and Albert Museum, this exhibition is worth a careful visit. It consists of water-colours and pencil drawings of ruins and motifs of Armenian architecture from the sixth to the thirteenth century. Prof. Lethaby points out in his "Introduction" that, "Original as the architecture of Armenia undoubtedly is, it is visibly influenced by all the artistic currents of its time, chiefly Syrian, Coptic, and Byzantine at first, and later, more and more Oriental. In its turn it has certainly contributed to the later Byzantine and the arts of Georgia and Russia particularly." Among the characteristics of the architecture a remarkable ingenuity of planning may be mentioned, especially the working-out of round and cruciform types, also the conical form of cupolas, and a roofing system of cut slabs of stone bedded directly on the vaults. The ornamentation is remarkably varied and experimental, showing, as Diehl says, "a prodigious spirit of invention."

Fortunately, this is clearly shown in some very accurate and able drawings, chiefly those of the two central cases. These soft pencil drawings to scale of miscellaneous ornament act as a kind of revelation to a western mind—friezes, borders, and spandel fillings conceived within the exacting limits of traditional criteria are so simply and faithfully presented as to force their decorative rhythm in no equivocal way. The far case is full of such drawings, and I commend them as effective, very effective, examples of architectural pieces of carving. No. 42 of Archivolts to Ani Cathedral and to Mren Cathedral are equally felicitous in that respect.

The water-colours have not got the same artistic value. There is ample evidence of a painstaking process in their making, and one feels that they show in a very strict way what the artist saw himself, neither more nor less, but the handling of colour is not very pleasant, and, as the illustrations to the catalogue bear witness, they look better in black and white; but what they show, they show excellently. External features are clearly delineated, and one appreciates how the churches were often constructed of very finely jointed masonry in large blocks used as facings on both sides of the walls, and having a core of concrete. "The coverings of vaults and cupolas—the latter invariably of conical form—are marvels of ingenuity of design, a sort of joiner's work in masonry. Pottery vessels were sometimes set in the concrete of the vaults to lighten their weight, and it is thought that this has been the cause of excellent acoustic results." We also learn that the smoothed stones of the cupolas and roofs were from time to time washed with oil.

Mr. Fetvadjian has rendered a service to architects in making these drawings. "He seems," as Diehl remarked when this exhibition was held at the Musée des Arts Décoratifs, in Paris, "like the Pausanias of another great civilization who has brought together an incomparable collection of documents," and as the decorative value of these architectural features should, on account of their boldness and rightness, be felt to the full, it is not, perhaps, a useless suggestion thrown out to urge all constructional artists to see for themselves what these early mediæval craftsmen could do on the very confines of Europe, at the very gate of sensuous Asia.

G. HOLT.

The Architectural Association

It is amusing in an exhibition like that at the Architectural Association, to distinguish the mind of the architect through the brush of the painter. In Gordon Hake's sketch of St. Paul's from the river, for instance, you can feel the architect's sensitive pleasure in the pure, circular shape of the dome. S. C. Ramsey, too, realizes with unerring architect's instinct the monumental quality of noble trees, while James Burford, in a sketch of a Japanese character, displays that plastic sense typical of his work, which is (or ought to be) the peculiar faculty of the architect.

Curiously enough, architects, when they turn painters, show rather a flair for impression, which, considering their meticulous training, is the reverse of what is expected of them. Here, amongst other things, tremulous fantasies by Curtis Green are to be found, a very happy combination of line and wash in a landscape by N. F. C. Day, bold water effects by E. R. Jarrett, and Steeresque mysteries by T. M. Wilson. After these it is a relief—and a surprise—to come upon formal drawings like Leslie Glencros's "Bloomsbury Backs," where the fantastic arms of the trees make a bizarre pattern against those "backs," which have so strong a hold on the affections of all true cockneys.

As regards versatility, Nevinson has two rivals here in W. G. Newton and Gordon Holt. There is a foreign town of Holt's, full of expressive colour effects—a nice pattern; and a drawing of barges which is a study in significant form. But his *chef-d'œuvre* is the portrait of the red-haired girl (or whatever it is) in the place of honour. It is an extraordinarily graceful and exhilarating performance, the sort of fanciful delicate picture that would fascinate anybody—a pavement artist, an organ-grinder, or a member of the middle-classes; but its charm lies essentially in the fact that it is the expression of an Idea—precise, refined—and not the expression of a vague and random emotion.

Criticism of the exhibition as a whole must be confined to one point. Though delicacies are certainly to be picked out here and there, a certain sleekness and well-being peeps from a proportion of the sketches, suggesting that their authors are inclined to be well-satisfied with their work—a mental condition which makes one dissatisfied with their perceptions. Rather more ambition, rather less of conventional respectability, would produce less smug self-satisfaction, but more interesting results.

Paintings and Drawings by Contemporary Artists

The first picture one encounters in the Grosvenor Galleries' Winter Exhibition is Sargent's "Lady Sassoon" (1), and one's first impulse is to anathematize the facile brilliance and vapid bombast of the style. On comparison, nevertheless, it is evident that while other portraits in the same room are honest endeavours, copies of human faces, and valuable studies, in method, the Sargent—stupid, fluent, florid—makes a definite claim to be a picture, a Creation—something that has not happened before, like a new thing. It has the remarkable quality, too, of expressing in each detail the character of the whole conception. If you look at Gerald Kelly's "Miss Elita de Bissy court" (29), you cannot indicate any minute brush stroke as essential, very vigorous, though the general effect is one of extreme vitality; but in the Sargent each kiss of the brush has the quality of fire in that it is fierce yet delicate, and expresses in miniature the cumulative effect of the whole painting. There is a certain mocking, elusive expression in the face, faintly resembling about the eyes Velazquez's early portrait of Philip IV of Spain in the National Gallery, which is rescuing the portrait from banality. But how florid the cloak and dress! How loose in conception beside the rendering, say, of the rather mean figure of the "Little Gypsy Girl"(96) by Neville Lewis. This, in the significance of its line and shape, seems to declare that not a single detail is without æsthetic importance—no wrinkle in a sleeve, no barb of a feather; while the vivid realization of forms, together with the daring experiments in chiaroscuro, and, above all, the interpretation of the child's face, give the painting quite a unique character. The child's face expresses (through a light coating of dirt) exactly that mixture of cheekiness and fright—that "startled look, born of excitement and self-consciousness which is typical of ignorant children when they are thrust suddenly into prominence.

There are a good many water-colours of architectural subjects which are interesting in view of the Architectural Association's Exhibition of Water-colours. Speaking generally, one would say that there is an atmosphere of enterprise in the artists' productions which is lacking rather painfully in the architects'! Take as examples, MacColl's "Church at Montreuil" (106), "Salers" (108), and "Old Houses at Chartres" (110), Ronald Gray's "Fawley Mill" (107), and "In a Shipyard" (111). They are all courageous water-colours certainly, and the daylight in the "Shipyard" is splendid indeed, but in addition to this one feels that each artist is striving to express some effect he has observed, or some idea he has conceived, rather than merely "paint a picture" or "do a sketch." There is a reason behind each stroke. This clearness of mind is what one misses more than anything in the average sketch done by an architect. That is a pity because looseness is the mark of the amateur.

H. D.

ıe Hospitality of the Plumbers

e plumber has been popularly ·d to H. G. Wells's "Invisible Man." he is, however, a creature of flesh ·lood, of human appetite, and super- n kindliness, was shown at the ıught Rooms on Thursday last, the Associated Master Plumbers ıon) entertained their brethren of ıstitute to a complimentary dinner - occasion of their half-yearly meet- The function, less formal than most, hed an evening's very real pleasure, ıced by the prevailing atmosphere of good-fellowship, not less than by xcellent gastronomical and musical ıainment produced.

posing the toast of the Institute of ɔers, Mr. G. W. Bennett, ex-Presi- Associated Master Plumbers (Lon- referred to the changes that had place in the last two years, and to ıcessity of reconsidering the position Institute owing to the action of peratives in throwing in their lot he National Federation of Building Operatives. The Associated Master ɔers, he said, were honoured by the ıte choosing one of their members president, but he felt at the same hat the Institute should be grateful m for providing them with a right nan.

Bertram Hellyer, President of the ıte, responded meetly, voicing the s of the guests for the hospitality ɔd. The Institute, he said, needed pport of Master Plumbers, not to of their subscriptions, and organized ıtion could not but be beneficial to cerned.

Powell, an ex-President, spoke at ength on the necessity of a change icy on the part of the Institute. ndency of present labour policy, d, exposed the impossibility of ɔn on the part of any section of ɔers. Union of employers was al to balance the combination of ıves, and each had his responsibility s fellow employers and to the Y.

J. P. Cox, M.B.E., J.P., proposed, ppy vein of north-country humour, the Associated Master Plumbers, and Mr. J. C. Smith, their President, replied with equal eloquence. Though young and not as yet numerous, they were, he said, a striving and ambitious body, and stout upholders of the Institute. Their object was to raise the status of the plumber, both by educational advantages and otherwise, and to increase the power, prestige, and popularity of the craft.

Building Trades Wages Chart

The chart reproduced on this page shows the variations in the rates of building-trade labour that have taken place since 1914. It will be noticed that, as divided, vertically the squares represent halfpennies, and horizontally months.

For many years the rates of wages were dealt with by means of local agreements, and it was only when agreement could not be reached on the lower Boards that the matter was finally reviewed by the National Conciliation Board. While trade was more or less normal this system worked very satisfactorily, apart from the fact that during certain periods of the war the Committee on Production dealt with wage advances.

The war and post-war position changed all these conditions very materially, and on May 1, 1921, the old National Conciliation Board ceased to exist, being superseded by the National Wages and Conditions Council. The duties of the latter body vary from those of the defunct Conciliation Board inasmuch as the Wages and Conditions Council, while dealing with appeals on the question of grading, do negotiate the wages variations on a National basis.

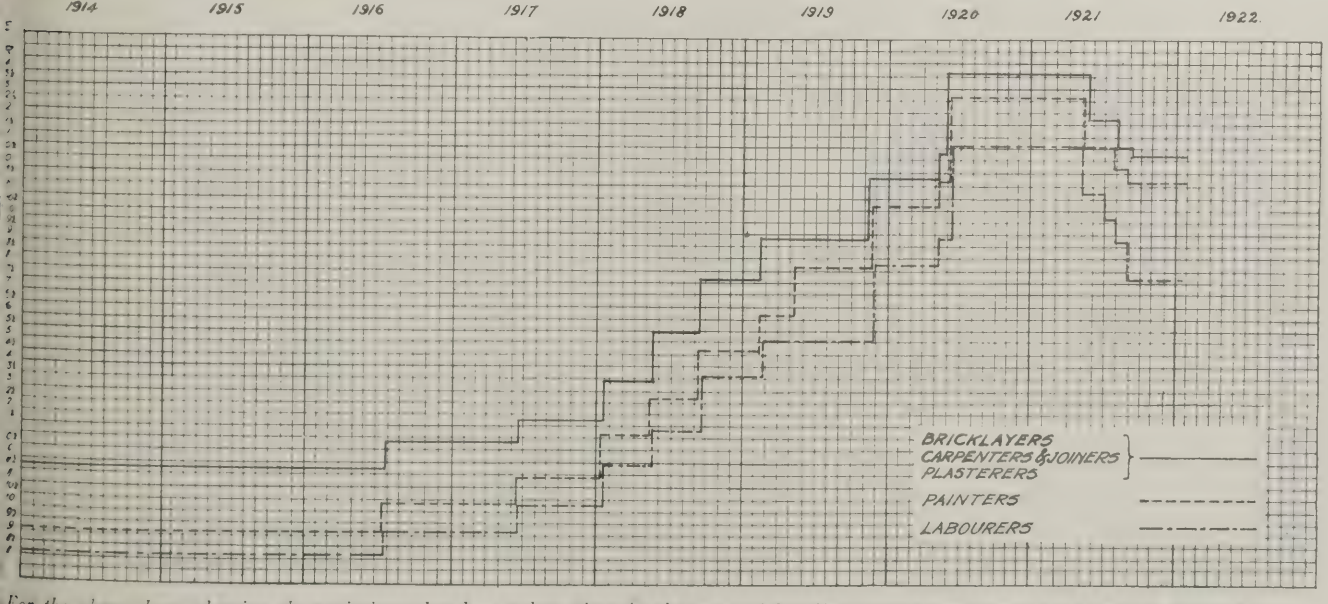
It will be seen from a reference to the chart that wages are stabilized until February 1922. The alterations in the rates are based on the average variation in the Monthly Ministry of Labour index figures of the cost of living since the last review, and are determined at the rate of one half-penny per hour in respect of every complete average variation of not less than 6.5 ($6\frac{1}{2}$) points, and take effect as and from February 1 and August 1 in each year.

The A.A. War Memorial Library

The memorial library of the Architectural Association was formally opened by Mr. Asquith on Tuesday last week, the President of the Association, Mr. W. G. Newton, presiding. There were also present, Sir Aston Webb, President Royal Academy; Mr. Paul Waterhouse, President R.I.B.A.; and Mr. J. Alan Slater and Mr. Stanley Hamp.

Mr. Newton said: We are met here this afternoon to honour our dead, whose names are on the wall behind me, and in memory of whose sacrifice the library has been made beautiful. I should like to say one word, if I may, about that sacrifice of theirs. For these were all men by temperament and training peculiarly sensitive to all that was comely, pleasant, and orderly. And they very soon realized that the picture of war which our daily press painted as a kind of rollicking sport where the enemy was always being outwitted by the British soldier with a smile on his face, was untrue. They very soon realized, and perhaps more acutely than others, that war is an ugly carnival of waste. Yet with this clear vision they did not shrink, but, with a half-whimsical resignation, endured the long days: those whom we honour this afternoon endured them to the end of their lives. And surely the highest heroism is to feel most deeply and yet keep an unconquerable soul. We are proud to-day to have among us Mr. Asquith to pronounce the formal opening of the library. We have no politics here, but we welcome him first as a neighbour, secondly as one who was Prime Minister of this country in the critical hour of choice between comfort and honour, and thirdly, and perhaps chiefly, as one who never used his high office to shelter those near to him, but is himself also one of the bereaved.

Mr. Asquith said: The world at large, perhaps, is not very familiar with the functions and mission of your Association, but it is a very important one. It takes charge of what, in your profession, as in all the humane professions, is a most critical and important stage in the life of those who are aiming at higher things—the



For the above chart, showing the variations that have taken place in the rates of building trade labour since 1914, we are indebted to Mr. F. J. Gayer, of Messrs. E. A. Roome & Co., Ltd.

stage of instruction and development. I understand that you have now somewhere between 200 and 250 members in your classes and schools, and it is a remarkable and significant fact that from a comparatively small body like that you sent out to the war a contingent of whom this memorial library commemorates no less than 96 who were killed or died at the front. More than that, the Association did very great service in the early days of the war by starting for your profession a recruiting bureau, from which over 2,000 members of the profession were ultimately sent to the front. Not a few of them attained positions of high distinction in the Army, the Navy, and the Air Force, and I believe specially, through their training and aptitude, in that glorious corps, the Royal Engineers. In these days we see scattered about the country every kind of war memorial, some of them, alas! not wholly appropriate to their purpose; but you have acted very wisely in choosing as your memorial a library which will be a nucleus of instruction, of illumination, and of development for the architects of the future. If there is a profession wedded to the arts of peace by all its traditions and associations, it is that of architecture.

Sir Aston Webb moved the vote of thanks to Mr. Asquith for his attendance, and said he hoped a word or two of what Mr. Asquith had said might be recorded on those walls. The vote was seconded by Mr. Stanley Hamp.

News Items

New Church for Hampshire.

A new church, to accommodate 1,000 troops, is to be erected at Bordon Camp, Hants.

White Lead in Paint.

A British proposal to prohibit the use of white lead in paint has been rejected by the White Lead Committee of the International Labour Conference at Geneva.

Four-mile Promenade for Southend.

Southend Council have sanctioned the expenditure of £33,000 for the first post-war parade widening scheme. The authorities aim at a four-mile promenade stretching from Leigh to Shoeburyness.

Proposed Thames Embankment Extension.

It is proposed to extend the Thames Embankment, which now runs from the Victoria Tower Gardens to Lambeth Bridge, so as to connect it with the existing embankment in Grosvenor Road, south of Grosvenor Wharf.

Proposed Bridge at Booth Ferry.

Goole Urban District Council are asking the Doncaster Corporation to approach the West Riding County Council with a view to their support being obtained for the construction of a bridge over the river Ouse at Booth Ferry.

Proposed Factory for Chelsea.

The Building Acts Committee of London County Council propose to abandon the formation of two of the intended streets on the Cadogan and Hans Place estate, Chelsea, to permit of the erection of a factory.

Shell Corner, Kingsway.

In the description of Shell Corner, Kingsway, published in our last issue, we omitted to state that the floors of the western building, for which Mr. W. J. Maddison was the contractor, were carried out by Messrs. Diespeker & Co., Ltd., of 57–60 Holborn Viaduct, London, E.C.1.

Foreign Joinery Work.

An agreement has been arrived at between the National Executive of the Amalgamated Society of Woodworkers and the National Federation of Building Trades Employers that joinery brought into this country from abroad must have been made under fair working conditions.

R.I.B.A. Special War Examination.

Arrangements are being made for the R.I.B.A. Special War Examination (December 1921) to be held in London and Liverpool. The latter will be a northern centre for this particular examination. Candidates should advise the Royal Institute as soon as possible as to whether they wish to present themselves in London or Liverpool.

Proposed Inspection of Public Buildings.

In view of recent accidents to public buildings resulting in loss of life, a Committee of the Association of Municipal Corporations is considering the desirability of some system of periodical inspection. At the invitation of this committee, the council of the R.I.B.A. have appointed two representatives, Mr. H. T. Buckland, of Birmingham, and Mr. E. Stanley Hall, of London, to meet the committee and discuss the question with them.

French Housing Proposals.

The Secretary of the National Housing and Town Planning Council, who has just paid a visit to France, has obtained a great deal of interesting information with regard to the housing proposals of the French Government. These proposals, according to the weekly record of the council, resemble in many respects the late housing policy of the British Government. The French Government propose to erect 500,000 houses in ten years, an average of 50,000 per year.

Competition Awards

Partick and Whiteinch War Memorial.

The assessor, Mr. Wm. Sharpe, chief architect to the Glasgow Corporation, has made the following awards in the Partick and Whiteinch War Memorial competition: First, F. W. Doyle Jones, 2 Wentworth Studios, Manresa Road, Chelsea; Second, Scott and Rae, 91 Bothwell Street, Glasgow; Third, Robert Gray, 335 St. Vincent Street, Glasgow.

List of Competitions Open

Date of Delivery.	Competition.
Dec. 1 ...	War Memorial at Harrogate. Premiums—£100, £50, and £25. Apply Mr. C. E. Rivers, A.M.Inst.C.E., Borough Engineer, Municipal Offices, Harrogate.
May 1922	Museum and Institute as war memorial for City of Auckland, New Zealand. Cost £170,000. Premiums amount to £1,000. Apply Secretary, R.I.B.A.

Parliamentary Notes

BY OUR SPECIAL REPRESENTATIV

Northern Irish Parliament Buildin

Mr. Reid asked the First Commissi of Works the names of the architects among whom the architect of the Ho of Parliament for Northern Ire would be chosen?

Sir J. Gilmour, replying on beha the First Commissioner, said: After ful consideration the First Commissi has invited Mr. Ralph Knott, F.R.I. to design and execute the public o in connection with the Civil Servic the Northern Irish Government. He also invited Mr. Arnold Thornely, o firm of Messrs. Briggs and Thornel execute the Parliament House. these architects have consented to u take the work, which will be begu soon as circumstances permit.

Parliament has now been prorog and will probably meet again early in

Messrs. Crane-Bennett Trade Mark

Illustrated on this page is the registered trade mark—a "cran which has been adopted by Me Crane-Bennett, Ltd., of London, chester, and Birmingham, to disting their fittings from those of any company, and at the same time to as a "hall mark of excellence" a guarantee of quality, economy, dependability. This firm, noted for up-to-date methods and efficient ser are well known for their pipe requ for heating installations, hospitals hostels, housing schemes, power pl public buildings, and private reside At the company's newly altered house at 45–51 Leman Street, just pleted from the designs of Messrs. M Smith, and Colbeck, architects, ther fine suites of offices, and a very stock of up-to-date malleable iron fitt

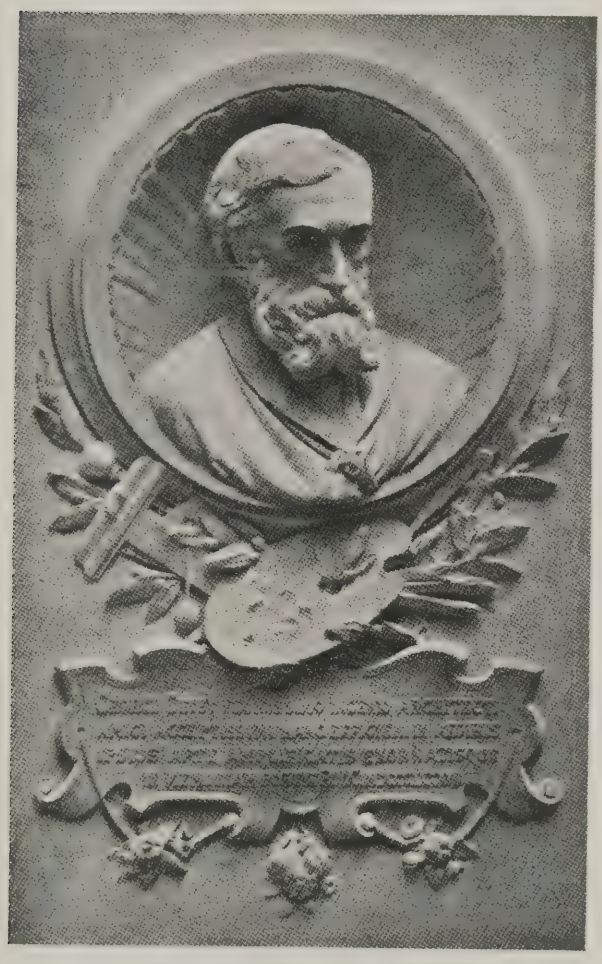


piping, etc. Special attention has given to the sanitary appliances, are well displayed in the company's showrooms. The floor space now a disposal of the firm totals 100,00 The stock is stored in lockers or arranged in long tiers so as to avenues running the entire length warehouse, and in order to ensur rapid execution of an order each loc labelled with a description of its con By means of an ingenious meth recording the firm are able to state a immediately their total stock of particular article. Thus the firm keep their stock up to requirements are always in the happy position of able readily to inform a client wh or not his order can be carried out at The whole business is run on the up-to-date lines under the manag of Mr. J. E. Bennett, the founder original firm, and every modern app which adds to the efficiency of the co has been installed.

nesday, November 30, 1921. Vol. LIV. No. 1404

THE ARCHITECTS' JOURNAL & Architectural Engineer

With which is incorporated "The Builders' Journal"



GEORGE DEVEY (1820-1886)

George Devey studied as an artist under John Fell Cotman, and became a Fellow of the R.I.B.A. in 1856. He prepared the way for the school of Norman Shaw, introducing a free treatment of early Renaissance work into English domestic architecture. Among his best works are St. Albans Court, Kent; Goldings, Hertford; Hall Place, Leigh; Coombe Warren, Kingston; and Killarney House, Killarney.

27-29 Tothill Street, Westminster, S.W.1.

Current Architecture. 129.—London County Westminster and Parr's Foreign Bank, Antwerp

Mewès and Davis, Architects



This bank, which has lately been completed in Antwerp, is notable for the sobriety and restraint of its architectural character, and worthily upholds the dignity of an important English banking corporation in a foreign city. English sea power is symbolized by a sea-horse on the crowning balustrade. Further illustrations and a description of the building are given elsewhere in this issue.

THE

ARCHITECTS' JOURNAL

27-29 Tothill Street, Westminster, S.W.1.

nesday, November 30, 1921 Volume LIV. No. 1404

Building at Cost Price

ARCHITECTS, we are sure, will be pleased and interested to note the very fine tone prevailing in most of the letters that have been sent in from great building firms in response to our inquiries ıis important subject. True it is that, as some cor-ndents observe, the suggestion that builders should · out a few special contracts at cost price with the :t of stimulating the revival of building is not, in the iar sense of the phrase, a "business proposition." ɛ is, however, a special sense in which that phrase holds

To forgo an immediate gain with the object of oting trade revival, of relieving the prevalent ɛss from unemployment, of setting an impressive prac-example of goodwill and self-sacrifice—surely so public-ed a project is in the broadest sense of the term a ess proposition. It would make an irresistible appeal ɛ hearts as well as to the heads of architects and the al public.

is extremely gratifying to note, from the correspond-:he proposal has evoked, that although the suggestion ɔrk for a time without adequate profit is certainly ssence of the project, yet in a number of instances ɛrs have expressed their willingness to make this ıce for the immediate relief of stagnation and un-ɔyment, and so for the ultimate benefit not only of the ng industry, but of the entire trade of the country. s. E. A. Roome & Co., Ltd., in writing that "Your stion to publish the names of leading London contrac-who are willing to carry out contracts at cost price is a good one, and generally coincides with our views," wise word or two that should help to encourage and .re the building owner, on whose willingness to co-te the success of the proposal entirely depends. s. Roome write: "It is a fact that to-day many firms ·ute are in such a strong financial position that they ɔle to weather the storm of trade depression. Many indeed, would find it much more advantageous to from the turmoil and strife that unfortunately a industry has developed into, but, with the sense of sponsibility that capital has, have decided to continue. decisions, therefore, carry a certain liability for over-:harges that the taking on of work at practically cost to some extent mitigates." That is a valuable con-ion to the discussion, making clear a point that ılly takes a rather important place among the *pros ns* of the discussion.

have been taken to task by Mr. E. J. Brown, writing, esume, on behalf of the London Master Builders' ation, for conducting this correspondence in our ·ay. He contends that we should not have sought pinions of eminent contractors individually, but have accepted the "considered views" of the representatives of the industry. His letter, which ıted in this week's issue, unconsciously and in-y supports the established theory that, generally ng, the more enlightened members of an organiza-tion are always considerably in advance of it in ideas and in breadth of view. An official view is almost inevitably narrow and sectional, and this is essentially an occasion for largeness of vision.

Mr. E. J. Brown appears to think—almost to assume, quite gratuitously—that we have accused the building trade of forming a ring to keep up prices. He should make sure of his facts before accusing us of so monstrous a heresy. In our issue of January 28, 1920, we actually printed a whole-page leading article headed "Slandering a Great Industry." In that article occurred these passages, in which, it will be seen, we explicitly and emphatically denied the existence of rings among organized builders: "The builder," we wrote, "is becoming restive. This campaign of insult and slander is getting on his nerves. Hitherto he has suffered in silence; now he is bent on rebutting vigorously the odious charges brought against him so wantonly and so recklessly. In one word, there is not the slightest truth in them. As the result of careful inquiries in many directions, we feel fully entitled to declare, with the utmost confidence, that there are no rings of organized builders." To clinch this categorical denial, a further article in the same issue of the JOURNAL opens with this equally emphatic declaration: "Reiterated allegations of a colossal building ring, formed to force up prices, have led us to make inquiries among those in a position to know whether the accusation is true or false. On all hands we are assured, and we are and always have been thoroughly convinced, that there is no builders' ring." That attitude we have never abandoned, and we indignantly repudiate any imputation to the contrary.

As to an alternative reading of the rather obscure passage in Mr. Brown's letter—that we are "quite in error" in stating that such allegations were prevalent, there is abundant evidence that such allegations have been commonly made—by responsible Ministers, and in the Press. An instance is before us in the shape of a newspaper cutting headed "Rings and Combines in the Building Trade. . . Conspiracy to Keep up Costs of Houses." Such allegations have been wholesale and notorious. They could not be ignored, and we have always denied them strenuously. In what respect then, are we "quite in error"? The charge is utterly absurd. Why it should have been made or insinuated passes comprehension.

On the general question of building at cost price, we have received a further batch of replies from contractors: these we publish in this issue; but as we understand that the London Master Builders' Association have, following our initiative, resolved to appoint a committee to inquire closely what practical steps can be taken to secure a revival in building—the fact was announced at the annual dinner of the Builders' Benevolent Institution last Thursday—we shall refrain for a time from printing further correspondence. But we have by no means finished with this subject, and unless we hear shortly of a real and positive proposal from the Building

Committee, we shall return to the matter with redoubled vigour. We are convinced—and most of the letters we have received agree with us in this belief—that many of our leading building contractors would sooner do work at cost than see their workshops empty and their machinery idle, and be pained by the knowledge that good men who have worked for them loyally for many years are in dire distress for lack of employment.

To work at cost price for a short time would benefit architects, clients, labour, and the country generally, and such benefits should not be lost simply because the London Master Builders' Association does not happen to like our proposal, or the method in which we have made it known, for that is the impression conveyed in Mr. E. J. Brown's letter, which appears to deprecate our efforts to bring to an end the present distressing conditions.

A New Point in Rights of Light

In the ancient lights case of Lewis and others v. St. Helens Estate, Ltd., an interesting new point was raised. Counsel contended that one of the parties, by assenting to certain lateral obstructions to light, had prejudiced their case against direct obstruction. This point is by no means based on a mere legal quibble. The argument was substantial and reasonable. If you allow A to obstruct some of your lateral light, then you will the sooner reach what Mr. Percy Waldram, giving expert evidence, described as "grumble point"—that is, of course, the point of deprivation at which the worker begins to complain of the effect of obstructed light—when B comes along to deprive you of more or less of your direct light. B is not obstructing light from your full quantum, but from the reduced amount that A has left you; consequently, when you complain that B has reduced your light to "grumble point," he retorts that this result could not have ensued from his operations if you had not already reduced your lateral light. Unfortunately there was no decision with regard to this novel and ingenious plea, as ultimately the case was settled out of court; but the fact that the point, having been raised, adds a fresh complication to the already sufficiently tangled interests of rights-of-light cases emphasizes the need of some means of pre-determining in simple but accurate terms the minimum of unobstructed light to which a building-owner should be entitled in any given situation.

Ulster Parliament Buildings

It is with very mixed feelings that architects will read the announcement of the names of the architects designated to design the Ulster Parliament buildings. Messrs. Briggs and Thornely and Mr. Ralph Knott are the fortunate nominees, and it will be universally admitted that, on the achievements of these architects, the honour has been well earned. Messrs. Briggs and Thornely have been, as our pages have frequently testified, prolific in architectural work of unquestionable merit; and Mr. Ralph Knott needs no higher commendation than that he is the architect of the London County Council Hall. That these distinguished architects will design for the Ulster Parliament an exceedingly noble home cannot be doubted for a moment. The only questions that arise with respect to the selection concern the manner of it and the manifest occasion it gives to national prejudice. On both accounts there is room for regret. In the first place, it is a pity that the method of selection should have been arbitrary; and, for the avoidance of national jealousies, it would have been more satisfactory, even to English architects, if Irishmen had been chosen. Not that there can be the slightest doubt that the selection of names has been strictly impartial and unprejudiced; but infinitely better than a selection of names from a list would have been the selection of designs submitted in open competition, with Irish assessors to make the choice. As the matter stands, prejudice is awarded a "free kick." Nevertheless, heartily we offer the chosen architects our most sincere congratulations on the honour that has befallen them.

Walcot's Classical Compositions

Should not an architect surround himself with positi evidences of his love of art? What should be their char ter? Of course, there must be pictures. It is these, a not the miscellaneous "objects of bigotry and virtue" th will make the strongest and most definite, the first and last, impression on the visitor. If the architect happe to be an exceptionally good draughtsman, pictures from own hand will serve the purpose exceedingly well. however, he is no better than the average producer of pla elevations, and sections, good enough from a utilitari point of view, but by no means pictorial, it is best to ke them in the drawer—documents to be produced as evide should the need arise, but by no means appropriate to adornment of walls. An ideal picture to grace an arc tect's reception room, or for the matter of that his hor or anybody else's home—for its appeal is not sectional universal—is a Walcot etching. But not every archit can light-heartedly aspire to possess a Walcot etchi Realizing this difficulty, Mr. Walcot, with a fellow-feeli for his brother-architects, has consented to the reprod tion of some of his finest etchings by a superb process photogravure, which preserves all the brilliancy of originals, and these photogravure reproductions are n obtainable, separately or as a set of fifteen in a portfolio, prices that the average architect can command. Equa with the originals they offer an ideal means of gracing architect's interior walls, whether at his place of busin or in his home. They dignify as well as adorn, and recalling the architectural triumphs of ancient Greece a Rome, record and commend in the most effectual way p sible the glorious traditions to which the architect is h These superb reproductions may be examined at the Arc tectural Reading Room, 27 Tothill Street, Westminster

The White-Lead Question

White-lead still has many friends. Some of them sp vigorously in its defence at the recently concluded Int national Labour Conference at Geneva, and they were, the first ballot, defeated by the precarious margin of vote, the proposals of the White-lead Committee, who, a majority report, had drawn up a convention regulat the use of the material, being rejected (by forty-five vo to forty-four) in favour of an amendment proposed in name of the French Government, who demanded the t prohibition of the use of this material. M. Godart, French spokesman, adduced startling figures to show beneficial effects of prohibition, but unfortunately he see not to have explained that the years showing the enorm decline from 298 cases in 1911 to six in 1920 covere period when, in consequence of the war, hardly any pai ing was being done. These statistics profoundly impres the conference, and the pleas of two speakers, from A tralia and South Africa, who each insisted on the seri injury that would befall the mining industry if the dema for lead were restricted, were outweighed by the huma tarian considerations urged by M. Godart. Ultimat however, the spirit of compromise, which had distinguis the conference in other matters during its month's sessi prevailed against absolute prohibition, and no doubt extent to which white-lead may in future be employe Great Britain will soon be made known in a Parliament measure which is understood to be awaiting the deci of the Geneva conference. Recent investigations in country suggest that effects which were long attribute lead-poisoning among house-painters were really due turpentine—a theory that is as much in need of confir tion as M. Godart's war-time statistics. The compro at which the conference arrived prohibits the use interiors) of white-lead and sulphate of lead and prod containing them, except in places such as factories wh their use is considered necessary by competent authori in consultation with employers' and workers' organ tions. The convention does not come into force until years hence.

Modern Architecture in Madrid

ITALIAN architecture has been admired and praised for generations past, but little study has been given to equally interesting work in Spain. Spanish Renaissance may not be of the same importance as Italian enaissance, but it is nevertheless well worth attention. he Spaniard's genius does not lie in spectacular planning in monumental design, fine as some buildings undoubtlly are, but in the masterly handling of detail, which, ough it may be fantastic and exuberant, is yet, in the st examples, by no means lacking in restraint. There e few things more charming than a typically Spanish çade of blank wall surface with small and irregularly aced door and window openings, surrounded by richly rved frames and protected by gracefully designed grilles; e last survival from the stormy days of early Spanish story.

This devotion to detail is perhaps a legacy from Moorish nes. The kingdom of the Moors in Spain lasted for many centuries, and their civilization was so far in lvance of that of the contemporary Spaniard, that their eals could not but be insensibly mingled with those of eir foes; and among the chief merits of Moorish archicture in Spain is the delightful charm and variety of detail. The Alhambra is not visited for an imposing yout or logically conceived elevation; indeed, in these spects it fails badly: it is visited for the beauty of its ousands of stucco and tile patterns and the delicate etwork of arch and vault. The Renaissance in Spain first took the form of plateresque work, of which the incipal characteristic is small and delicate detail. As ng as the scale is human, the result is generally not unasing; but in the exaggerated forms of plateresque chitecture the detail is so minute that the silversmith mpletely ousts the architect. It was not till considerly later in the eighteenth century that the Spanish love of tail burst all restraining bonds and broke out into the rrors of the churriguesque movement.

The best traditions of Spanish architecture have not en carried on in the new building revival in Madrid. e influence of the foreigner has proved too strong, and e fine blank wall surfaces and small window openings, which were so suitable in the glare of the brilliant Spanish sunshine, have completely disappeared. This break with the old style may also be accounted for by the lack of an historical building tradition in Madrid, which is one of the most modern of European capitals. Its history does not extend back into Visigothic and Moorish times like Toledo, or to the very early days of the kingdom of Castile and Leon like Burgos, both former capitals of Spain. Although strongly fortified, Madrid was at first merely an outpost to Toledo; later it became a favourite hunting and shooting resort of the Castilian kings, and was sometimes the scene of royal coronations. The real importance of the city began in the sixteenth century under Charles V, who frequently resided there, although Toledo remained the court and capital. It was not till 1560 that Madrid was declared the "Unica Corte" of the kingdom by Philip II, who thus succeeded in disposing of the rival claims of the chief provincial cities, by selecting a more or less neutral town as capital. The palace and convent of the Escorial, "El Real Sitio de San Lorenzo," had already been planned for erection on the slopes of the Guadarrama and was another inducement to Philip to establish his capital close by. Madrid lacks, therefore, the antiquity and historical associations which make the majority of Spanish cities so fascinating.

In few countries is it so easy to transport oneself back into the past as in Spain. The smaller towns and villages are still untouched by foreign influences, and life goes on much as it did two or three centuries ago. Patriarchal hospitality, such as has disappeared in other countries, is still the rule on the Spanish vega; quaint folk-lore and old wives' tales are believed in; the peasant has recourse to the witch and her superstitious magic to cure his ailments; and the bare-footed friar still walks the streets.

But against the background of mediæval life there has been thrown another picture. If the Spaniard is reluctant to enter the maelstrom of public competition, the foreigner is not; and so Madrid has become the scene of many foreign as well as Spanish business enterprises, and the buildings that have been erected to house them have lost their typically national characteristics.



PALACIO DE COMUNICACIONES, MADRID.

The Gran Via is the pride of every Madrileño's heart, and is expected to be the centre of Madrid's future commercial prosperity. Projected in recent years, and by no means yet completed, it now extends from the Calle de Alcala to the Metro station of Red de S. Luis, whence it is to be linked to the Puerta del Sol, the central focus of Madrid, along the line of the Calle de la Monteria. These business premises of the Gran Via are extremely interesting as a proof of the rebirth of Spanish trade, but from the architectural point of view they are on the whole disappointing. With their large windows, intended rather for a dull Northern climate, and their restless design, with the unquenchable love of detail taking the form of indiscriminate and meaningless ornament, neither native nor foreign architecture has given of its best. The exception is the simple and dignified Hotel de Roma, by a French architect, M. Galeron. Another fine building, but one which is quite outside the Spanish building tradition, is the Banco Español del Rio de la Plata, at the entrance to the Gran Via, where it has the advantage of a site next to a park. The architects were D. Antonio Palacios and D. Joaquin Otamendi, and the building was finished in 1917.

Enlightened architects in Spain have seen the danger of the foreign influence so evident in the Gran Via; and in the new block of offices in the Plaza de Canalejos the late D. Leonardo Rucabado has tried to revive the old native style of architecture. Unfortunately the pseudo-shells with which the upper part of this building is decorated, although charming on the Casa de las Conchas of the pilgrim at Salamanca, are out of place in this twentieth-century building of Madrid. Similarly the overhanging wooden balcony, which is reminiscent of many an old timber house at Avila or Segovia, certainly does not suggest the purpose for which the building was erected.

The largest and most important modern work in Madr is the new General Post Office, or Palacio de Comunic ciones, standing in the Plaza de Madrid, where the Salon d Prado and the Paseo de Recoletes join the Calle de Alcal Opinions will differ as to the merits of the design, wi its multitude of curiously shaped windows, towers, spire and pinnacles, and the crude and incorrect details of orde and mouldings. It is a significant fact that a sing building is capable of housing almost the entire post traffic of the capital. The district post offices of Madr are few and far between; letters are generally poste in boxes attached to certain trams, and are th brought direct to headquarters. The main hall of t "Palace of Communications" is large and grandios but corridors at the first or second floor levels r right across the hall and destroy all perspective effec A general view of the building is given on the precedi page.

The ruling spirit of modern architecture in Madrid commercial; and the result, though sometimes imposin is not altogether satisfactory. It does not follow, howeve that the Spanish love of art is by any means extinc Seville, for instance, seems alive with architectural promi in its lighter forms. Park and garden fittings, monument etc., are all delightful, as are also some of the exhibitio buildings, such as the great unfinished semicircle in t park of Santelmo, which is decorated in the charmi Sevillian manner by local yellow and blue tiles. The fou tain to the memory of two of Spain's national heroe Don Quixote and his companion Sancho Panza, is a pe fect gem in its own light and playful way; and it is to hoped that an equally spontaneous spirit will ultimate infuse the monumental architecture of Spain.

GERTRUDE W. M. LEVERKUS.

Building at Cost Price

Below we publish some further letters received from leading building contractors on the above subject.

William F. Blay, Ltd.

Messrs. William F. Blay, Ltd., of London, write: "We are unable to see why a contractor is to take all risk if the work costs more than the agreed price, while he is to give up any profit he may make and be allowed only 5 per cent. for establishment charges and use of plant, which would immediately turn his contract into a loss. We are sure no fair-minded person would entertain the idea."

Gayes and Gayes

Messrs. Gayes and Gayes, of Roman Road, E., and Westcliff-on-Sea, write: "We are not at all certain that the suggestions put forward in your letter, if carried into effect, would help the situation at all. We feel rather that it would give opportunity to clients to make the lives of builders more unbearable, if possible, than they are at present. Our views can be expressed in the form of a few questions, which are as follows:—

"(i) Is the present and threatened inactivity in the building trade due to lack of confidence in the builders by their clients?

"(ii) Is the slump not due to general bad trade and lack of funds at clients' disposal?

"(iii) Is it not also due to the fact that clients when informed as to present rates of pay in the trade, refuse to pay any such sums to men whose "labours" they describe as "pretending to work"?

"(iv) Are builders' profits so enormous that, if it was agreed to cut them out, the difference in cost to clients would be so great that a tremendous influx of orders would result?

"(v) Is it fair to ask builders to handle work, and men, and the men's unions, all to a client's complete satisfaction for nothing, whilst builders' merchants are to be allowe to take their profits, and workmen ca-canny on at the usual rates of pay?

"(vi) Is it quite English to ask builders to take the ri of an estimate in competition and yet be asked to har back any saving on the price, if by care, keen purchasin and continual supervision there should be a saving at all

"(vii) Would it not be better to suggest a general clo down for a few months.

"(viii) Why ask builders to forgo profits and perm tradesmen to profiteer at will?

"(ix) Would architects prepare plans and superinter work and generally carry on as usual and forgo the remuneration, less cost of paper, ink, and colours?

"(x) In the event of your suggestions taking effec will builders be allowed to carry on their works and at t same time receive the dole upon which to live?

"Our own opinions must, from the foregoing, be obviou at the same time we shall be pleased to have answers our questions either from your good selves or your readers.

Wm. Willett, Ltd.

Messrs. Wm. Willett, Ltd., of Sloane Square, write "We certainly were not aware that anyone seriously thoug there was any question of a ring formed by builders to ke up prices. In our opinion the reverse is the case, and w doubt if there is any trade at the present time that cutting prices like the building trade.

"We should be quite willing to take our part in a scheme of building operations of a public utility nature a price which would merely pay our cost plus overhea charges; in fact, during the war we carried out work considerable magnitude on a similar basis without a actual profit to ourselves."

Current Architecture. 130.—Some Recent Buildings in Madrid



HOTEL DE ROMA.



BANCO ESPAÑOL DEL RIO DE LA PLATA.



SIDE ENTRANCE TO POST OFFICE COURT.



BANCO ESPAÑOL DEL RIO DE LA PLATA.

: the present time a considerable architectural revival is taking place in Madrid, many fine buildings being in course of 'ection throughout the city, especially along the Gran Via, which is expected to become the centre of Madrid's future)mmercial prosperity. Some comment on the buildings illustrated above is given by Miss Leverkus in the article which begins on page 643.

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School Design*

By GEORGE H. WIDDOWS, F.R.I.B.A.



Γ first in the Christian era elementary education was given in the home; but after the decline of ır in Christian families following eace of the Church in the reign of antine, schools for ordinary educa- ecame an acknowledged thing, and commended by the Council of ı in the year 529. Thenceforward was steady development through iddle Ages by means of monastic, lral, and chantry schools on the one ınd guild, hospital, and city schools e other—a system not altogether the dual system of the present day. ıs far the emphasis was laid on the ıal training; then came the Renais- and the Reformation, with the re- ation of many schools in the reign ward VI; and in this period the ısis was laid on the intellectual ıg. From that time onward to n days the development is well ı. In the last few years the em- appears to have been laid on the al side; and we, as architects, have concerned more with this, in en- uring to express in our buildings a on of the problems of heating, g, and ventilation.

impetus given to school hygiene ndoubtedly brought about by the g of the 1902 Act. Although this vhich brought into being our large ional authorities, made no pro- for the school medical officer, heless it soon became apparent that fficial would look into things and his presence felt. That much re- attention is undoubtedly a fact; ıe credit for drawing attention to the unsatisfactory planning of schools must be given to Doctor George Reid, of Staffordshire. He, with Mr. Hutchings, the Staffordshire authority's architect, was the first to break down the bad tradition of the central hall. I think we in Derbyshire may claim to run a close second, and before long nearly all other authorities took up the running.

In the old central-hall type of school one apartment ventilated into another, and the free circulation of pure air was impossible. We know that the central-hall type of plan was developed with the idea of giving the head teacher very little walking exercise. By seating him at a lordly desk, and by providing spy-holes called borrowed lights, the head teacher was converted into a kind of glorified policeman, instead of being, as he should be, a guide, philosopher, and friend of children and teachers.

With the abolition of the central hall and the acceptance of the principle of through ventilation one of the greatest revolutions in planning in any kind of building took place, with the result that in 1914, when school building practically stopped, our English schools had obtained a distinctive character which was known the world over; and this character was brought about by adopting commonsense methods in connection with ventilation, lighting, and heating.

In the matter of ventilation we owe a great deal to Professor Leonard Hill, whose researches and books are so well known. He has entirely exploded old theories. Ventilation is the first essential, and bad ventilation will try both body and brain more quickly than bad lighting or bad heating.

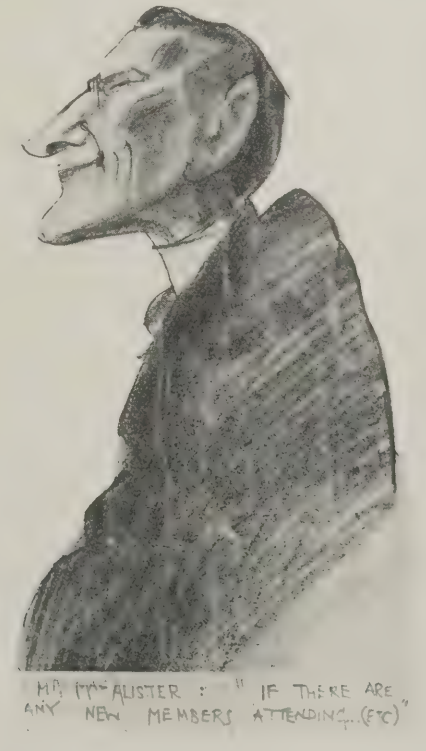
Professor Hill bids us see that the old theory that the primary need of ventilation was to supply oxygen to the lungs is not true, otherwise consumptives would not be sent to the tops of mountains, where the amount of oxygen is less than in the valleys; and that the primary end is to produce skin activity by the carrying away of the heat and moisture of the body.

The second chief thing that we have to bear in mind is that the best form of ventilation is not obtained by bringing in air near the bottom of a room and taking

racts from a Paper read before the R.I.B.A.







AT THE R.I.B.A. MEETING. CARICATURES BY H. de C.

it out through the middle of a ceiling, but is best obtained, and in the simplest manner, by causing air to pass across the room by the agency of wind pressure.

The old theory that there were poisons in expired air is found not to be true; and it is also found that the human body can only absorb a given quantity of carbon-dioxide, and that any excess is not absorbed by the system but thrown off; thus the physical aspect takes the place of the chemical in this matter of ventilation.

The second of the three hygienic principles is lighting, and there are certain facts which need particular attention; and here may I say how much I owe to visits paid by members of the Illuminating Engineering Society, and the help I have received from them? Especially do I wish to express my thanks to Doctor Kerr, of the London County Council.

Lighting can, of course, be by windows on one, two, or three sides of a room; and while scientists agree that unilateral lighting is best, nevertheless it has not yet been shown that other forms of lighting are harmful. A light from the left from above the head is doubtless the most restful, and that is, I think, as far as we can go at present.

Where unilateral lighting is adopted one point to be observed is that a line forming an angle of 30 deg. with the top of the desk farthest from the window should, when projected, pass through the glass area of the window. Another point is that the glass area in rooms up to 20 ft. or 21 ft. in width should be one-fifth of the floor area. If this width is exceeded then the glass area would probably have to be increased to one-fourth or even one-third, but no room should be more than 25 ft. wide.

A third point, which refers especially to town areas, is that 50 sq. deg. of clear sky should be observable on the desk farthest from the window. This 50 sq. deg. is obtained by adding together the horizontal angles and multiplying by the vertical angle.

Another point in lighting is the undesirability of having movable partitions glazed. Teachers have a strong objection to this, as it reduces the privacy of a class. Moreover, a child sitting and looking at a teacher standing in front of a glazed partition may very well have its eyes strained with the light coming from the window of an adjoining room.

No classrooms should, as a rule, be more than 21 ft. in width. In a wide room the teacher has great difficulty in covering so large an angle of vision as 116 deg. In an ordinary classroom of 20 ft. the angle is reduced to 83 deg.

There are various ways of heating schools—grates and stoves are more or less cheerful, but the heating is partial, and soon dissipated when doors are open to admit scholars at the opening of a session. Another method is by means of warm air without propulsion, and this is very unreliable. When assisted by fans with the usual accompaniments the heating becomes deadly monotonous, while the windows, being closed winter and summer, have a very deadening effect.

A steady, deadly uniform heat is a thing to be avoided. Moreover, in some heating systems the airducts become foul, and a considerable amount of dust finds its way into the building—in fact, one French scientist discovered that such air contained double the amount of matter that the ordinary air contained.

Other methods of heating are high-pressure steam and high-pressure hot water, low-pressure steam and low-pressure hot water; and experience seems to show that of these four the last one is the most serviceable in a school.

For those who would wish to carry the matter further I would refer them to the article on school buildings in the "Encyclopædia of Education," recently published by Messrs. Pitman.

Discussion.

In the discussion which followed, Sir Edmund Phipps, of the Board of Education, said that in the past the Board had done something in the nature of encouraging school building, and hoped to do so in the future. Sooner or later all the schools which had been put off during the war would have to be built. His recollection of Mr. Widdows was that that gentleman had always managed to get the better of the Board of Education—or at any rate always managed to get the best out of them.

Mr. Felix Clay, also of the Board of Education, said that he was glad of the opportunity to testify to the extraordinary amount of work Mr. Widdows had done to develop the modern school. When plans from Mr. Widdows arrived at the Board there was always something in them to think about, and very often something to argue about, but eventually the school was built just as the plans first came in. He noticed that Mr. Widdows, in the three points he had taken that evening, took ventilation first. In that he was quite sure Mr. Widdows was right, and it seemed to him that one had to decide what form of ventilation one was going in for before one could start planning the school. It had been proved that the chemical composition of the air had very little to do with the ill-effects which were often felt in a crowded room, and he instanced the experiments of Dr. Leonard Hill. Personally, he advocated cross-ventilation and the good old-fashioned window.

Mr. Gilbert Scott said that at Liverpool Cathedral the system of heating and ventilating the church was to be by circulating hot air through channels in the floor, which idea, of course, reverted to the old Roman practice.

Mr. Paul Waterhouse, President, said Mr. Widdows had told them many things which might be applied not only to school architecture, but to nearly all buildings. There was one question he would like to ask Mr. Widdows. When windows were constructed with hoppers, how could one arrange about the exit of air?

Mr. Widdows, replying, said that if there were air pressure on one side of the building the foul air would be bound to force its way out on the other. Even when the wind struck the building end on, it moved slightly either to one side or the other.

Others who contributed to the discussion were Mr. H. W. Wills, Mr. Alan E. Munby, and Mr. Leverton.

Prior to the delivery of Mr. Widdows' paper a vote of thanks was passed to Mr. William Walcot and his publishers for the gift to the R.I.B.A. of a set of the photogravure reproductions of Walcot etchings.

Exhibition of American Architecture

On Wednesday of last week Viscount Astor, M.P., opened the exhibition of American Architecture in the Gallery of the R.I.B.A. Lady Astor was received by the President, Mr. Paul Waterhouse, and the members of his council, and, speaking from a dais in the Great Gallery, declared the exhibition open.

A vote of thanks to Lady Astor was moved by Mr. Waterhouse and seconded by Major-General John Seely, M.P. Lady Astor was then conducted round the Galleries by the President, and displayed the keenest interest in the wonderful collection of beautiful drawings and photographs illustrating the work of the present generation of American architects.

Among those present were: The Agents-General for British Columbia (and Mrs. Wade), Nova Scotia (and Mrs. Howard), Ontario, Queensland (and Mrs. Hunt) and for Tasmania (and Mrs. Ashbolt); Sir James Allen, High Commissioner for New Zealand, and Lady Allen; Lord and Lady Armaghdale; Mrs. Asquith; Mrs. Herbert Baker, Donn Barber of New York, and Ernest Barker; Major H. Barnes, M.P., and Mrs. Barnes; Lord and Lady Barrymore; Mrs. Ridley Bay; Mr. and Mrs. Gilbert Bayes; the Bishops of St. Albans and Birmingham; Sir Edgar and Lady Bowring; Sir Edward and Lady Busk; Lord Carmichael; Mr. Chao-Hsin-Chen, Charge d'Affaires, Chinese Legation; Lord Charnwood; Lt.-Gen. Sir Travers and Lady Clarke; Sir Timothy Coglan, Agent-General for New South Wales, and Lady Coglan; Sir J. D. Connolly, Agent-General for West Australia, and Lady Connolly; Mr. L. Cope Cornford; Mr. Alfred Cox, O.B.E., M.B., and Mrs. Cox; Mr. and Mrs. R. W. Dana; Mr. W. H. Davies; Mr. E. Guy Dawber; Dr. Edwin and Mrs. Deller; Lady Eve; Sir Almeric and Lady Fitzroy; Mr. H. M. Fletcher; Mr. W. A. Forsyth; Sir Gregory and Lady Foster; Lt.-Col. F. E. Freeman, M.P.; Messrs. Eric Gamage, J. L. Garvin, and Bertram Goodhue of New York; Sir Hamar Greenwood; E. Stanley Hall; The Rev. Dr. and Mrs. Haynes and Miss Haynes; Mr. Henry Hobhouse; The Home Secretary and Mrs. Shortt; Sir Arthur and Lady Keith; Mr. Stanley Leathes; Lt.-Gen. Sir George MacDonogh; Professor and Mrs. MacLean; Messrs. Stephen McKenna, Norman McKinnel, W. B. Maxwell, and E. L. Meinertzhagen; Lord and Lady Meston; Mrs. F. B. Meyer; Lord Moore; Lord Morris; Sir Malcolm and Lady Morris; Brig.-Gen. Magnus Mowat, C.B.E.; Sir David Murray, Mr. Ernest Newton, R.A.; Lord and Lady Ormonde; Lt.-Col. P. and Mrs. Pelletier; Mr. Charles J. Post; Professor A. E. Richardson; Mr. Cyril Roberts; Mr. and Mrs. J. M. Robertson; Lord Russell; Sir Charles and Lady Ruthen; Mr. G. Gilbert Scott, A.R.A.; Sir Amherst Selby-Bigge; Mr. Clement Shorter; Messrs. Skinner; the American Consulate General, and H. M. Spielman; Lord and Lady Strathspey; Hon. Mrs. E. T. Talbot; Messrs. Andrew T. Taylor, William Walcot, R. Warner, and Michael Waterhouse; Mr. and Mrs. Maurice Webb; and Mr. and Mrs. Blanco White.

By a happy coincidence the opening of the exhibition was witnessed by two of the most distinguished of American architects—Mr. Bertram G. Goodhue and Mr. Donn Barber—who have just arrived in London for a short visit. Mr. Goodhue, whose brilliant work at West Point and elsewhere is well known on this side, is one of the foremost leaders of the Gothic School, while Mr. Barber is an equally enthusiastic disciple of the "Ecole des Beaux Arts." The exhibition—a review of which appears in another part of this issue—will remain open (free) to the general public to December 9, between the hours of 10 a.m. and 5 p.m.

Arrangements have been made for holding a special students' evening on Friday, December 2nd, at 8 p.m., in connection with the Exhibition of American Architecture at the R.I.B.A. Gallery. Several prominent architects who are familiar with recent American work will be present, and they will give students information on points of interest. This exceptional opportunity will thus be afforded students of gaining an insight into the trend of thought and methods of their brother architects across the Atlantic. Students from the architectural schools and others are cordially invited to be present.

ew Bank at Antwerp

is fine new bank, designed by Messrs. ès and Davis, architects for the Lon- County Westminster and Parr's gn Bank, Ltd., has been erected on ite of an ancient monastery in the e of the Place de Meir, Antwerp. : architectural treatment the façade free interpretation of the Palazzo imi (Peruzzi, architect) at Rome; and lan is admirably adapted to the ard shape of the site. At each corner e exterior, under the cornice, is a ie bearing the arms of London and erp; the arms of the latter being also azoned on cartouches above the doors vestibule. To represent the sea-power gland a sea-horse has been placed at end of the external balustrade.

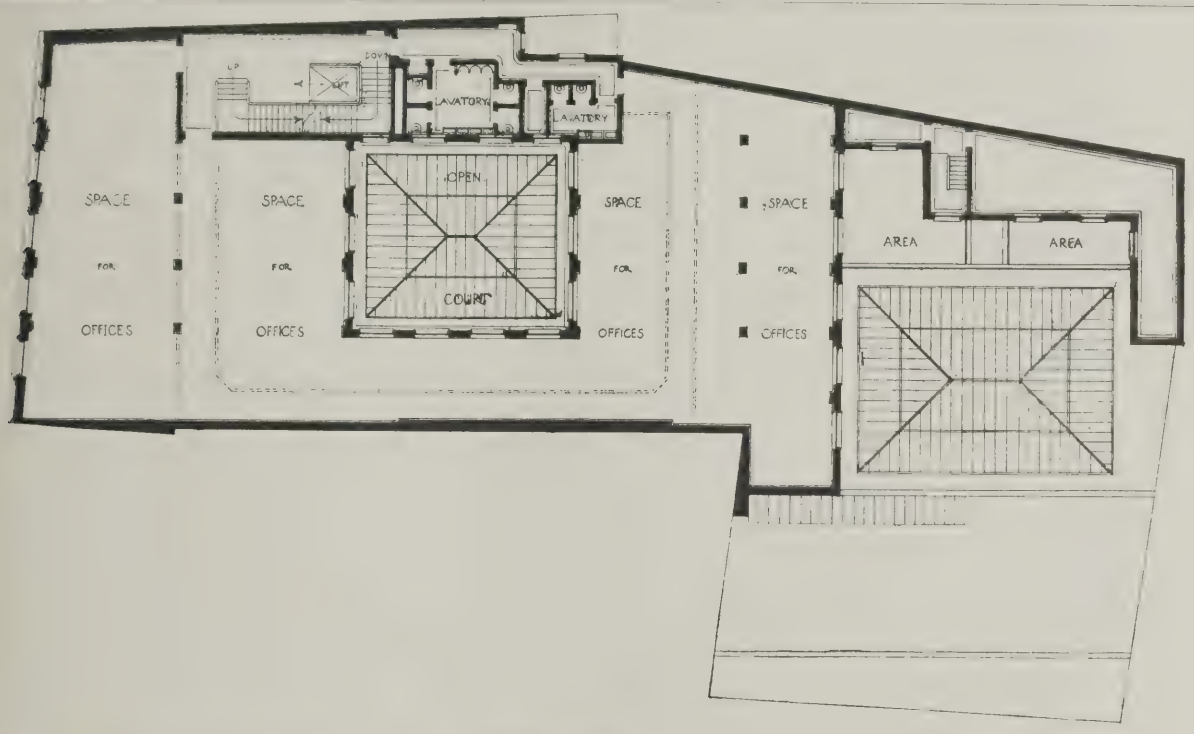
e walls of the main hall are con- ted of artificial stone, or stuc, the s of Scagliola, with marble bases and caps; the floors of the public parts of white and green marble, and the others of wood blocks; the doors are of oak, and the grilles on the counter of wrought iron, with bronze mounts. The basement and ground floors only are occupied by the bank, the entrance being through the doorway on the right. The other doorway provides access to the upper floors, which are to be let out as offices.

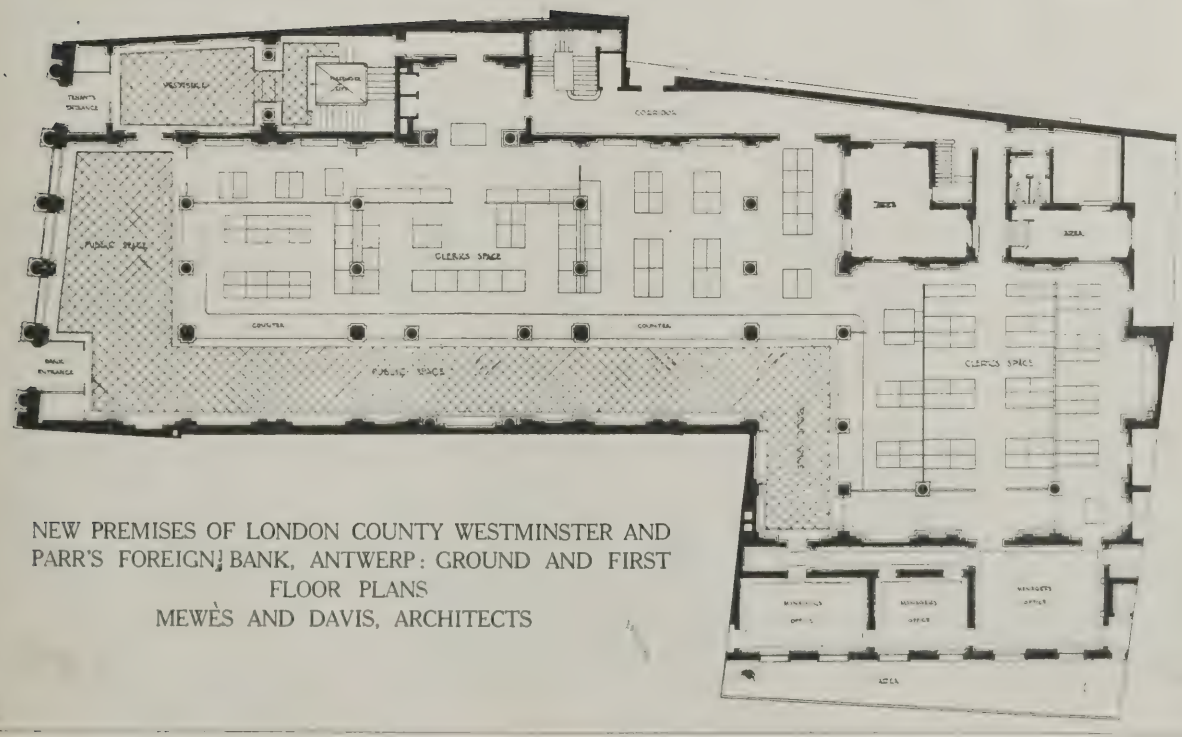
Mr. Davis paid frequent visits to the work, which was supervised by Mons. Jos. Hertogs, of Antwerp, architect. Messrs. Holland and Hannen and Cubitts, Ltd., the general contractors, who have a branch in Belgium, erected the building —a steel frame structure—on a combined system of English and Belgian methods, Belgian workmen being employed under the supervision of an Anglo-Belgian foreman. The sub-contractors were Belgian. The Chatwood Safe Co., Ltd., were responsible for the strong-room installation.

The Destruction of the Bank of England

Beyond disclosing the fact that the Bank of England is to be rebuilt, the authorities preserve a portentous silence, which is meant to signify, we imagine, that mysterious and important preparations are in process of incubation. It is quite certain, however, that the present Bank is to be destroyed; and from the statement issued that the new building will take many years to complete, it may be inferred that the work is to be carried out on a large and magnificent scale. It can only be hoped that the best architect of the day will prepare the designs, and that something worthy and expressive of the Bank of England will be erected.

We are well aware that a JOURNAL such as this is expected to raise agonized hands of protest at the bare idea of any-





NEW PREMISES OF LONDON COUNTY WESTMINSTER AND PARR'S FOREIGN BANK, ANTWERP: GROUND AND FIRST FLOOR PLANS
MEWÈS AND DAVIS, ARCHITECTS

body destroying an old building, but in this instance we do not propose to live up to our reputation. It has long been a fetish to revere the present Bank of England as a tremendous piece of powerful design, but in truth it suggests neither the dignity of a bank nor the character of England. On the contrary, no work could be less English or more characteristic of everything inferred by the word "Foreign"; while the attempt at power is hopelessly vitiated by the jiggling frippery of the ornament. The Bank starts with a gesture and ends with a flourish, and presents that narrow and sinister aspect which Englishmen inevitably associate with what is foreign. On the other hand the Bank has a personality all its own. Though repelled, one cannot pass from Cheapside to Cornhill without observing it more narrowly than either the Mansion House or the Royal Exchange; and one cannot forget the character of it either. In this, perhaps, lies its true value. For generations it has compelled the awe of the City. In leaving its mark on mayors, corporations, merchants, shipping agents, underwriters, and stock-brokers, it has become in time an intrinsic fragment of the City, significant of the tragedy and vanity of human life, and involved in human associations. To destroy it is to break one more link with our past, but that is simply breaking a bond, and can be justified if it releases us for a triumphant future.

"Best Building of the Year"

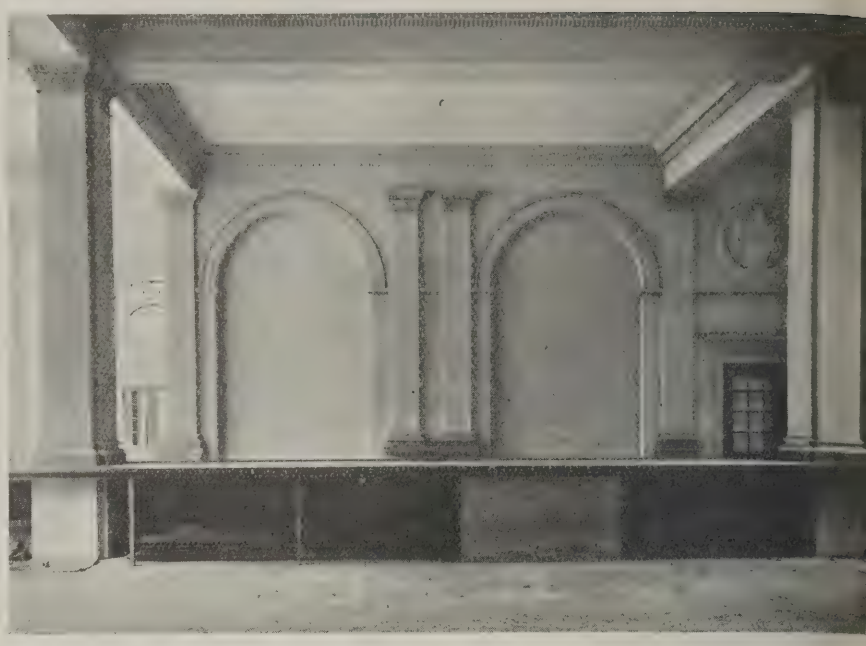
The Council of the R.I.B.A. are considering a proposal to award annually a medal to the architect of the best building erected in London during the year. This plan has been tried with great success in France, and its initiation in this country was the subject of an article by Mr. Allen Foxley entitled "A Prize for the Best Façade of the Year," published in our issue for June 15 last. It is proposed to give each class of building its turn, so that one year the medal would be awarded for the best store or shop, another year for the best public building, another for the best block of flats, and so on. It is suggested that a special committee representing the best professional elements and a number of laymen should undertake the judging.

In discussing the proposal "The Manchester Guardian" says: However much the ordinary citizen may desire to understand and appreciate the new buildings that arise around him and form the foreground and the background of his everyday life, he has few means of doing so.

If he turns to the excellent architectural weeklies that are now published may get penetrating criticism of buildings of the past and controver about the principles of monumer architecture. But although plans a elevations of every new building excellently reproduced in their pa there is no indication whatever given him whether the buildings are good or b or why they are good or bad. The impr sion the layman gets is that all buildi are equal in the sight of the editor.

It is surely an odd thing that w music, painting, sculpture, and literat have to face the full battery of critic in the journals devoted to these subje architecture alone is secluded from critical shocks. Yet, curiously enou every now and then articles and co spondence appear in the architectu papers about the lack of public inte in their art.

The giving of a medal to the archit of the building that is considered the b of its class during the year will arous new interest in contemporary archit ture, for we shall now know at any r one building that is not considered architects a bad building.



NEW BANK AT ANTWERP: VIEW IN BANKING HALL.



SEA HORSE ON NEW BANK AT ANTWERP.

The Training of Architec

The R.I.B.A. has published a pamph containing full particulars of the chann through which membership of R.I.B.A. may be gained, together with list of the "recognized schools," and special exemptions which have b granted to candidates who take cert of their courses. The pamphlet gi concise information on the three sta which a candidate has normally to p to obtain the Associateship R.I.B The candidate must qualify as a pro tioner, as a student, as an Associate; a full particulars are given as to the qu fications required for registration as probationer; as to the Intermedi Examination, success in which quali a probationer for registration as stude as to the final examinations which qual for registration as Associate. The pa phlet may be obtained at the R.I.B. 9 Conduit Street, W.1, at the price 1s., exclusive of postage.



The business of banking is here given an appropriately dignified setting, the architectural treatment being on the monumental lines more often associated with American than with English banks. The walls of the main hall are of artificial stone (or stuc), the columns being of Scagliola with marble bases and caps. The floors of the public parts of the hall are of green and white marble, the other parts being of wood blocks. Joinery generally is of oak, and the grilles and counters are of wrought iron with bronze mounts.

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Current Architecture. 132.—London County Westminster and Parr's Foreign Bank, Antwerp: Views in Banking Hall

Mewès and Davis, Architects





The above photographs show the interior of the bank before the completion of certain details of equipment. The upper view is of the clerks' space in the front part of the hall, showing the attractively designed top light and the cartouches of the arms of Antwerp on the walls. The lower view shows the clerks' space at the back of the hall, which is also top-lighted. Wrought-iron fanlights are effectively introduced over the doors.

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Correspondence

:viving Public Confidence in Building

To the Editors of THE ARCHITECTS' JOURNAL.

RS,—The council of this Association had under its consideration certain espondence which has appeared in your RNAL recently upon the subject of ving public confidence in building, :h seems to have culminated in a ested scheme of "building for no it," and upon the subject of which ions have been sought from various lers within the London area.

y council fully recognizes the impor- e of persuading the public to build, objects most strongly to the way in :h the opinions of individuals are g sought, rather than the opinion of body representing the industry. For ous reasons these individual opinions not represent the considered views ie chosen representatives of the indus-

statement appears in a covering r which you, sirs, have sent out to vidual firms to the effect that "Un- mately as you know, the conviction ide-spread that *builders have formed g* and are keeping up prices artifici- " The italics being mine. Now, my council joins issue with you upon statement, and declares that you quite in error.

here no doubt is, or has been, a ring ngst certain manufactürers; there have been a ring amongst merchants at is open to question; but if one g is more certain than anything else, e is not, and has not been, any ring ngst "builders." I need only call tion to "results of tenders," which ar in the trade papers weekly, in r to disprove any such ridiculous ment.

y council wishes to know why a ler should be picked out to act as nthropist in preference to any other idual ? Is no other industry suffer- rom stagnation at the present time, is it at all likely that the workman be induced to give better output use his employer is supposed to be ing for no profit ? Will you, sirs, ble to persuade him that this em- er is really the philanthropist he is ut to be ?

ill you also be able to break down any that exists amongst manufacturers his method ? It seems that they d still be able to maintain their s, and that all the saving that would fected would be that of the meagre which may or may not fall to the er.

y I ask whether the architect is l to come into your scheme of nthropy, and give his services to the c too ? I can picture the faces of the tects, who have been hit probably r than any other profession during last seven years, should they be cted "to work for no profit for a !"

, sirs, it won't work. If a statement as I have quoted above is allowed to go unchallenged, the public will have their minds still further poisoned against the builder, and I therefore beg emphatically to state that "no ring exists or has existed amongst builders," and with every respect I beg to differ from you when you state that a conviction is widespread; to the contrary. The way to "revive public confidence in building" is to show the public that wages are now stabilized for periods of six months, so that twice in each year they will be adjusted according to the cost of living, that materials, with the exception of two or three classes, are a free market, and have reached a position which may be considered a fairly steady one, that output is generally considered to be much improved, and that it will not be by "waiting and seeing" that cost of building will be lowered, but by work being placed within reach of employer and employed, and healthy competition set up amongst both sections of the industry.

Such precepts as these are far more likely to restore confidence than any suggestion of the builder agreeing to work for no profit, and it is to be hoped that no self-respecting builder will fall into the trap which this suggestion to which I refer would lead him.

I can imagine how pleased A would be, after entering into a contract with B for a building to be erected which is precisely similar to one that C requires, and that B has, under your scheme, agreed to erect "without profit." I do not think that A would feel that his confidence had been restored !

Yours faithfully,

ERNEST J. BROWN.

Director,

London Master Builders' and Allied Industries' Association.

[We have never alleged the existence of building rings, but, on the contrary, have always strongly denied the charge. For further reference to this letter, see page 641.—Eds. A.J.]

Work of the Sheffield School of Architecture

To the Editors of THE ARCHITECTS' JOURNAL.

SIRS,—With reference to the kind notice you recently gave of the University of Sheffield Architecture Department, my attention has been drawn to the statement to the effect that students who take either the Degree or Diploma in Architecture of the university will be exempted from the R.I.B.A. Final examination except for one short paper in professional practice. Although the Architecture Department of the university is a "recognized school," recognition is at present limited to exemption from the Intermediate R.I.B.A. examination for students who take the university certificate after three years' study. The University of Sheffield has five year Degree and Diploma courses, and I may say that it is proposed to make application to the Board of Architectural Education for these courses to be recognized so that students gaining the Diploma or Degree may enjoy exemption from the R.I.B.A. Final examination except so far as the paper in professional practice is concerned.

W. M. GIBBONS, REGISTRAR.

Registration and Unification

Mr. Sydney Perks, F.R.I.B.A., has sent the following letter to the "Journal of the Royal Institute of British Architects" : I was one of the men who voted in March 1920 for the general principle of Registration and Unification. Members were informed at that meeting by the President that "the resolutions before the meeting did not commit them to any definite scheme or policy, but merely provided the machinery for preparing and submitting one to the Institute."

I am glad to see Mr. Keen's letter in the JOURNAL of the 12th inst., but I do think he might have given us a little more information, which, however, I am happy to supply.

Under the 1914 scheme (which is printed in the R.I.B.A. Journal of December 31, 1913, page 429) a register was to be formed including men who were not members of the R.I.B.A., and the fact that they would be on the register *would not make them members of the R.I.B.A.* But the scheme of the Unification and Registration Committee is vastly different, for that Committee wants us to approve "the principle of . . . bringing all the architects of the United Kingdom into membership of the R.I.B.A."

This proposal has never been submitted to the general body of members, and cannot be carried out until it is, and until we approve it; it is not a matter for the Council to decide, and judging from the large number of letters I receive from all parts of the kingdom the opposition will be considerable, and I think Mr. Keen will find that Mr. Hiorns's remarks *do* "represent the feeling of many of our members in relation to the matter," only they express themselves much more forcibly.

Mr. Keen states that it is not intended to admit men "without reference to their qualifications," so I presume we may rely on his voting against the resolution I quote above; for it makes no reservation on the point he considers so important.

"The R.I.B.A. Constitution League" has been formed to oppose the admittance before the passing of a Registration Act of new members to the R.I.B.A. except in accordance with the present system of examination; our views are fully stated in the Journal of August 27, 1921, page 556. We are not opposed to Registration. Any member writing to either of our vice-presidents, Mr. A. W. S. Cross or Mr. H. D. Searles-Wood, or to Mr. George Hubbard or myself, can automatically become a member; there is no subscription. Associates are particularly invited to join, as their position is so critical under the scheme. We have only had three meetings, and already have a hundred members.

E

The Exhibition of American Architectur

By GORDON H. G. HOLT

NOT only is this exhibition varied and comprehensive, it is also invested with a thoughtful significance, for it illustrates not merely the ultra-modern aspect of American architecture, but also its equally interesting evolution from the more sedate examples of the Mission style period.

As architects, we might wish for more plans and sections; but it is not a serious defect, the photographs which make up the bulk of the exhibition fulfilling their task uncommonly well. And here let me praise the excellence of most of these photos, not only on the specific ground of adequate presentation, but of artistic consummation as well. What could be more enticing? What could better convey the great qualities of scholarly forethought, of grandeur latent in so many American buildings, than the photos of the vestibule to the General Post Office, New York, by Welles Bosworth (24), or the two really fine prints showing respectively Russell Pope's Scottish Rite Temple (51), taken by night, or his Leeds Mausoleum (52). These are indeed beautiful, and it is not so moot or trivial a point as not to be worthy of a distinct acknowledgment, because the sooner English architects realize not so much the obvious advantage of having faithful records of their works in the guise of photographs, but that such photographs should be taken by a man blessed with especial selective powers as well as technical skill, the better for them.

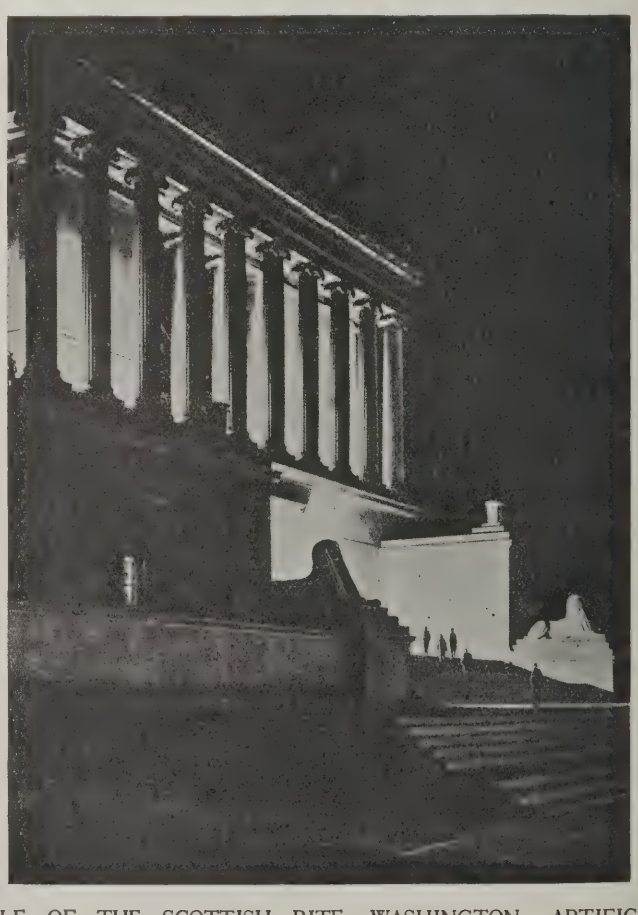
The exhibits are grouped under individual headings, as it were, and the system works clearly. Delane and Aldrich in "Residence of Bertram Work, Oyster Bay" (1), show their power of restraint and their fond love of refinements. The façade is simple, the details and surroundings have been profoundly studied, and the result is a lasting success. The "Façade to the Winthrop House" (3) is another instance of identical qualities yielding identical results. Both these elevations are gems of domestic architecture. The singular Louis Sullivan is represented by the now familiar exterior of the National Farmers' Bank, Owatonna (10). The "Water Garden Pavilion" of Arthur Heim, with its long, rectangular pond well backed by the pavilion, is worthy of notice; the three open bays, capped with their low-pitched roof of tremendous overhang, make an immediate appeal, which is partly due to the corner treatment of double piers and to the fanciful decoration of the bays.

With 22 and 24 one comes in contact with the monumental stuff which has won American architects most of their transatlantic fame. The "Institute of Technology," by Welles Bosworth will repay close scrutiny, especially the vestibule. Observe the able distribution of its gigantic Doric columns, the frieze over the doorways—which frieze, by its mere introduction, adds a secondary rhythm of great charm—the elaborate coffering and beam treatment. When so convincingly carried out, there is much to be said for this almost unmitigated use of antique formulæ, for here it is made in the full enjoyment of much sure knowledge, and in no way does it ever traverse structural requirements.

The next architects are prolific exhibitors. No fewer than twenty photos and drawings give us further instances—if such are necessary—of the great accomplishments of McKim, Mead, and White. Beside such landmarks as the Pennsylvania Railway Station (28), or the Pierpont Morgan Library, N.Y. (40), there are others which, if less known to European critics and admirers, are notable efforts. "Houses for Geraldyn Redmond and Countess De Langier-Villars, N.Y." (32) is a case in point. Greater effectiveness shall seldom be achieved: the handsome and huge roof, broken by substantial chimney-stacks, and with its clever arrangement of dormers, the whole surmounting a plain ashlar façade of noble proportions, of which not the least interest centres in the excellent fenestration, or the elevation of the "Century Club, N.Y." (45) in a pencil, pen-and-ink, and wash drawing of much charm.

An eminent architect once gave it as his considered opinion that more than anybody else Russell Pope is being looked up to by the younger bloods of America, and it is not difficult to see many reasons for this in the few, but for all that the extremely significant, photographs which display the scope of his genius. The "Scottish Rite Temple" may or may not be the best choice, but if it isn't, then the blame for picking up the wrong plu must be laid at the door of the phot grapher or of the artist responsible f the beautiful perspective drawing. Th photos have been seen before in o professional periodicals, but it is neverth less a pleasure to see them again, espec ally as the exterior of this temple is illu trated by the photo taken in daytime an another taken at night from the ver same point of view. And this last one is which brings in its trail many sugge tions of indubitable possibilities, ina much as it actually throws light on fascinating side of architectural effect- that of artificial lighting. This effec very obviously, can only be dealt with a set article, but it is enough to say tha this photograph adumbrates in a mo pregnant way great possibilities. Th "Scottish Rite Temple," as seen by nigh is truly invested with a fantastical touc with a quickened sense of ethereal vitalit which it must surely lack in the mo searching and prosaic light of day.

That American architects are n insensible to this powerful aid of artifici lighting is made apparent whenever the have to bring into being an internation exhibition. Both the St. Louis and th Pan-American Exhibitions were mad far more alluring by this frank and insi tent use of it, and a recent striking draw ing by Ferris (I believe) of a 1,000 f tower to some semi-ecclesiastical build ing by Cram and Goodhue fired th

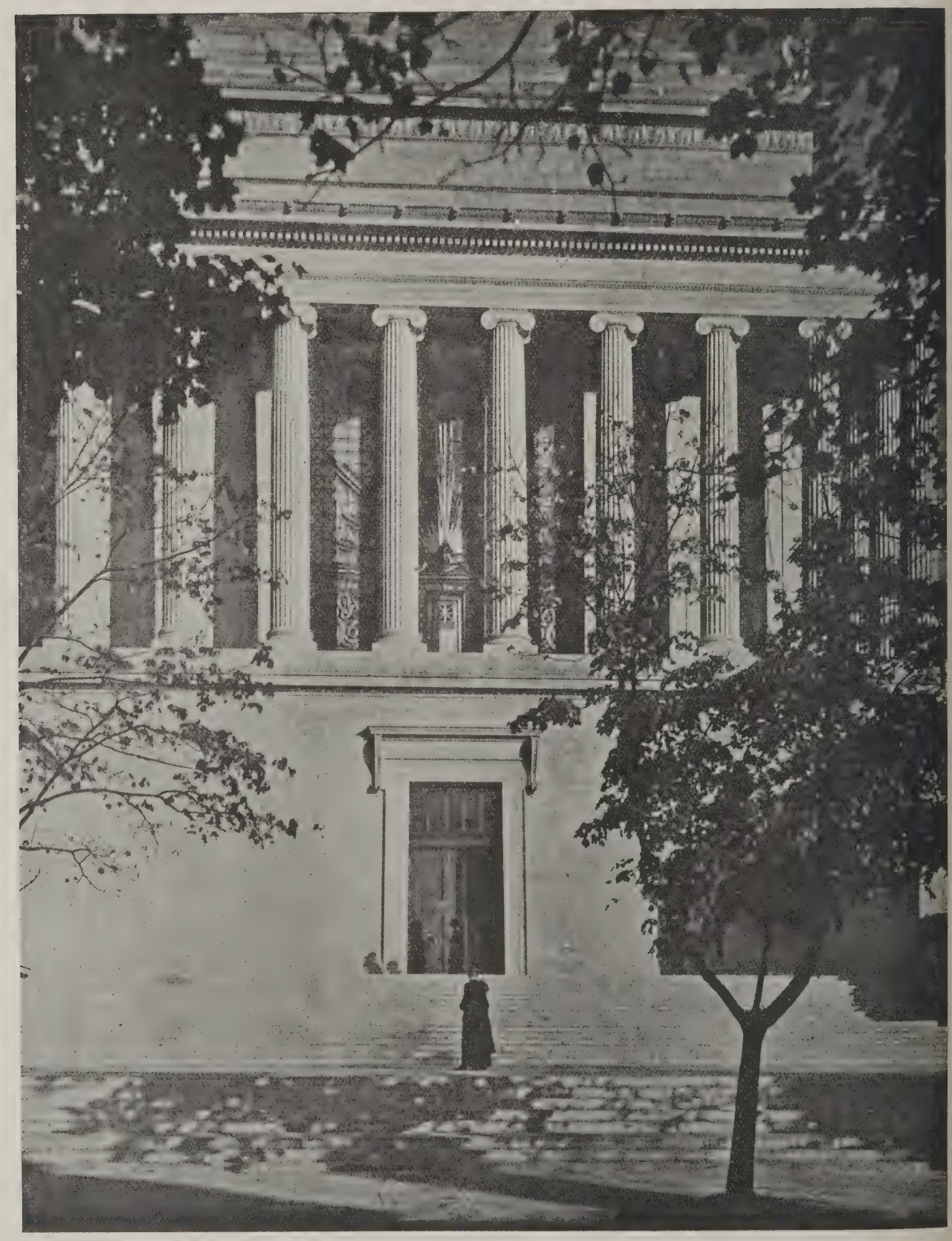


TEMPLE OF THE SCOTTISH RITE, WASHINGTON: ARTIFICIALLY ILLUMINATED AT NIGHT. JOHN RUSSELL POPE, ARCHITECT.

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Temple of the Scottish Rite, Washington : West Front

John Russell Pope, Architect

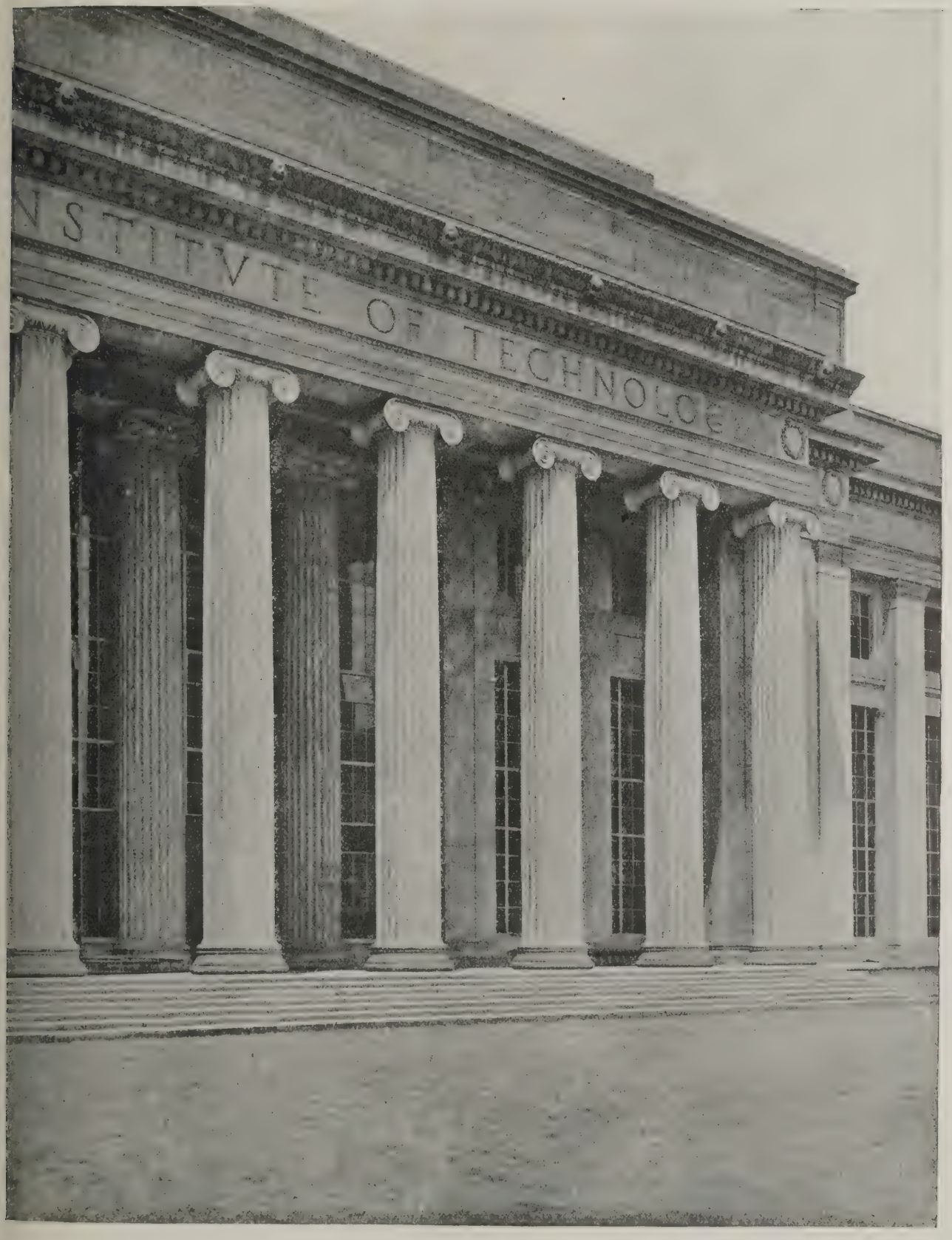


Photographs of both the above buildings are now on view at the Exhibition of American Architecture in the galleries of
upon a site about 250 ft. square, and masses up impressively on all four sides. Granite steps lead up from the lower
33 ft. in height, and just thirty-three in number—all this in accordance with masonic symbolism. The Massachusetts

itecture.—26

Massachusetts Institute of Technology : Detail of Entrance Portico

William Welles Bosworth, Architect



Street. The design of the Temple of the Scottish Rite is based on the Mausoleum of Halicarnassus. The structure stands ups of three, five, seven, and nine, to the terrace in front of the entrance, and the monolithic columns above are gy is a building of immense proportions and scholarly architectural character, a typical detail being shown above.

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ıation the more easily by the s handling of dramatic effects so ed. But Russell Pope's more ectural power is best illustrated which photo shows the entrance to eeds Mausoleum. Probably it is ding of such obvious artistic value) attracts the younger architects by aring use of mouldings, the origin- of its frieze of wreaths taking the of triglyphs and yet retaining the "guttæ" under the fillet, by the ionally fine low-relief carving over orway, with the entire building to surrender its almost majestic ess by so chaste a glomeration of being embodied and held in so an expanse of otherwise unadorned ork.

53 gives us an exotic fountain to the patios that act as refreshing to the Pan-American Exhibition. is indeed pleasant, but one still the intractable charm of Paul drawings of it, as they were pub- a few years ago. Stress has been n the scholarly refinement of so eminent American architects. It be carried further, for Carrère and ıgs are naturally expected to show e signs of it, and they, in fact, do 72—"An Art Gallery for T. Ryan, with a bold use of sgraffito in the oggia of the first floor. Whatever weaknesses are revealed in the ıent of pilasters or spandrils are than counter-balanced by the ly ground floor. The farther gal- as as much interesting material in

If 203 and 204, "Allen House," arles Berg, betray too conscious a ity for heterogeneous materials, ault of overdoing the "texture cannot be levelled at Mellor, and Howe, in the photos they of the "Residence of George Howe." one is face to face with an excep- y firm appreciation of stonework plied to a domestic building of a uxurious character; the incorpora- f brick in it being especially happy iscreet, and it does not rob the y and pond below of our full meed ıiration for an exceptional piece of

Long Gallery contains a very ing collection of works by unknown ıial" architects, which it would great pity to miss. I will only end the quaint conceits—or are nerely adorable audacities of some ıisticated builders ?—of 297, "In- lence Hall, Philadelphia." In 245, klyn Academy of Music," Herts Robertson have given sound and ıg examples of stage curtains and s.

for poor Lloyd Wright ! so poorly ented; most of his work is so good makes it still more disappointing him represented by "Midway ıs, Chicago" (221). These gar- were designed for recreation, re- ent, and swift pleasures, but a less ic feeling could not be attained it difficulty; it is passing strange he brickwork and the multitudin- uare shapes of his piers and abut- should look so Teutonesque and ıtaneous.

l, such a kaleidoscopic review of so photographs—there are over 300— or later jades the nerves. I cannot t a better way of tittilating them once more than by advising the onlooker to bring his attention to bear on some of the drawings and rendered perspectives. There is 21, already alluded to, an "Institute of Technology"; this handsome monochrome drawing, some 5 ft. by 4 ft. 6 in., is a fine formal "rendu" in the French manner. And there are two other remarkable drawings; one (47), of the "Scottish Rite Temple" is extraordinarily effective. Drawn and coloured on grey paper, it exhibits very few tricks, and throws much credit on that consummate architectural artist, O. R. Eggers. As to 156, "General View of Panama—California Exposition," beside being the largest drawing on view, being at least 6 ft. long, it unmistakably betrays the influence Charles Guérin had, and probably still has, on his lesser satellites. This is not merely a vast exercise in tree rendering, or in luminosity, but a coherent and solid contribution to architectural rendering, and whosoever is afflicted with the strange malady of wanting to—or having to—render ambitious drawings should have a sustained look at it, gloss over its few defects and dwell at length upon its brilliant qualities, not because it is a Guérin (probably it isn't), but because it does not overdwarf the architectural buildings, but frames them in a grand, sumptuous and satisfying manner.

"Archibald Dawnay" Scholarship

In accordance with the terms of the will of the late Sir Archibald Dawnay, the R.I.B.A. offer annually, for competition between students of recognized schools, three scholarships, two of £50 per annum for two years (£100 in all) and one of £25 per annum for two years (£50 in all). The scholarships are intended to foster the advanced study of construction, and the improvement generally of constructional methods and materials and their influence on design, and will be awarded for excellence in construction with the idea of assisting the winner in the further study of construction. The competition is open to all students of recognized schools who have completed within the preceding year, or are about to complete, their full three years' course in architecture. Successful competitors will be required to register as students of the R.I.B.A. before taking up the scholarship awarded.

In the first instance applications must be made through the principals of the various schools, who will nominate candidates and submit evidence of study on behalf of the student or students nominated, in the form of notebooks and work already done in the school. Such application should reach the Board by the end of June each year. A final selection will be made by the Board of Architectural Education, who will base their selection largely on the actual school work of the candidates, but should it be necessary a limited number of applicants will be required to submit to a further test in the form of a written paper or otherwise as the Board may direct. (Provincial candidates will not be required to attend in London.)

The scholarships will be tenable at any recognized school selected by the successful candidates, who will be required to devote their time particularly to the object of the scholarship, specified above. In all cases the second year of the scholarship will be subject to approval or revision by the Board. Applications for renewal of scholarships must be made by the students direct to the Board not later than the end of June in each year, and be accompanied by evidence of study during the past year. The scholarships are open to all subjects of Britain or the British Dominions, but are tenable only in the British Isles.

Northern Architectural Association

At the annual meeting of the Northern Architectural Association, the president, Mr. T. R. Milburn, of Sunderland, in the course of his address referred to the present-day conditions of the profession and the great interest of the public and the press in architecture. He especially mentioned the importance of the interests of the public in street architecture. He also referred to his recent visit to New York, and gave an interesting account of conditions prevailing in New York. A scheme was also outlined for the closer union of the members of the Association, which comprised the counties of Northumberland, Durham, and Cumberland. The Association is in a prosperous condition and is widening the scope of its usefulness. A great effort is being made by the Council to establish a school of architecture in the North of England, to be centred in Newcastle. In the discussion which followed Mr. C. S. Errington and Mr. Burns Dick, of Newcastle, and Mr. G. T. Brown took part.

School of Architecture Essay Competition

The Proprietors of THE ARCHITECTS' JOURNAL offer to the day students of the University College of London Architectural Department an annual prize of five guineas in architectural books, for the best prize essay. The competition is open to all second and third year students, and to full-time students taking special courses in the day school.

The conditions of the competition are as follows :—

1. Essays may be on either of the subjects mentioned below.

2. Essays must not be longer than 1,000 words, and should be written on one side of each sheet of paper only, and bear the nom-de-plume of the competitor written clearly on the cover. They must be accompanied by an envelope containing the author's name and address, and bearing only the nom-de-plume on the outside.

3. Essays must be sent in by December 31, 1921, or the first post on January 1, 1922, addressed to : The Literary Editor, ARCHITECTS' JOURNAL, 27–29 Tothill Street, Westminster, S.W.1.

4. The decision of the Editors is final, and must be binding on all competitors.

5. The subjects for the competition for the year 1921 are :—

(1) The value of Tradition in Architectural Design.

(2) A Student's Vision of Architecture.

Book Reviews

Architectural Office Administration

This is a very excellent little book, embodying a great number of useful American and English ideas for improving the machinery of an architect's office, which will be very useful to us when our practices return. In the meantime it will do us no harm to learn how we ought to file the drawings and papers and check the draughtsmen's time connected with Mr. Smith's half-million job when it comes; in fact, it is rather entertaining to do so. It is like reading a Continental Bradshaw when you know you have no chance for a long time to come of a Continental holiday. I must say, though, the sections of the book and the charts showing how to keep track of the thousands of pounds' commissions, which pour each month into the hands of the imaginary firm of architects mentioned, is carrying the game a little farther than our nerves can stand. We are apt to feel in our present straitened circumstances that we know well enough what to do with those thousands if once we saw them, and that we should not require any chart, diagram, or form to help us to remember their existence.

I am glad to see Mr. Lorne among his many useful suggestions lays stress not only on the vast saving of time and money which the adoption of various forms of hatching to show material on working drawings involves, but on their greater clarity and permanence than colour, if properly done. This method results in the use of the blue print. In America it is practically the only form of photo-print used, so that a roll of blue-prints has become over there almost the staff and symbol of office for an architect. The system means, of course, that the original tracings on linen are carefully kept, and never leave the office, and that a fresh set of blue-prints is struck off for each alteration and for each sub-contractor. English contractors at present no doubt prefer the English coloured print, but that is largely a matter of habit. The accuracy of blue-prints, where hatchings cannot be disputed nor altered, as colours can, nor changed by time and wear, will soon convince users of their practicability, especially with well-figured drawings.

Mr. Lorne suggests nests of drawers and large envelopes for storing current tracings and drawings, but does not mention a system in general use in America and already in some English offices, which seems superior for men with large works on hand. It is a big cupboard or small room off the drawing office with two wires stretched across it. From these the tracings hang by clips, very much in the way a good many people keep their trousers. The tracings keep flat and uncrumpled as the trousers do, and you can examine them briefly without always taking them down, just as you can search the pockets of the trousers for your lost knife and keys.

The main feature of Mr. Lorne's book, however, besides his excellent advice, is the forms, twenty-nine in all, he has drawn out for registering the multifarious detail of an architect's office. Several of these are for rubber stamps, which certainly save a great deal of time at present wasted in drawing titles on working drawings, and can be made sufficiently neat if well drawn in the first instance. I notice some American architects go further and buy their sheets of drawing paper and linen already printed in the right-hand bottom corner with the name of the firm and the key to the hatchings.

I can strongly recommend Mr. Lorne's book to all architects, even to the young man just starting with the drawings of one week-end cottage in his office. Those who already have a system—and every one, even the most untidy, has one of sorts, however inefficient—will be glad to compare it with Mr. Lorne's, and those just starting will save many years and much energy if they adopt a good one to begin with. The English fallacy that the artist is not a practical man, instead of, as he really is, the only practical one, has probably grown out of some defect in our education by which the value of organization as a means of increasing power, including the power of the artist, has not been sufficiently brought home.

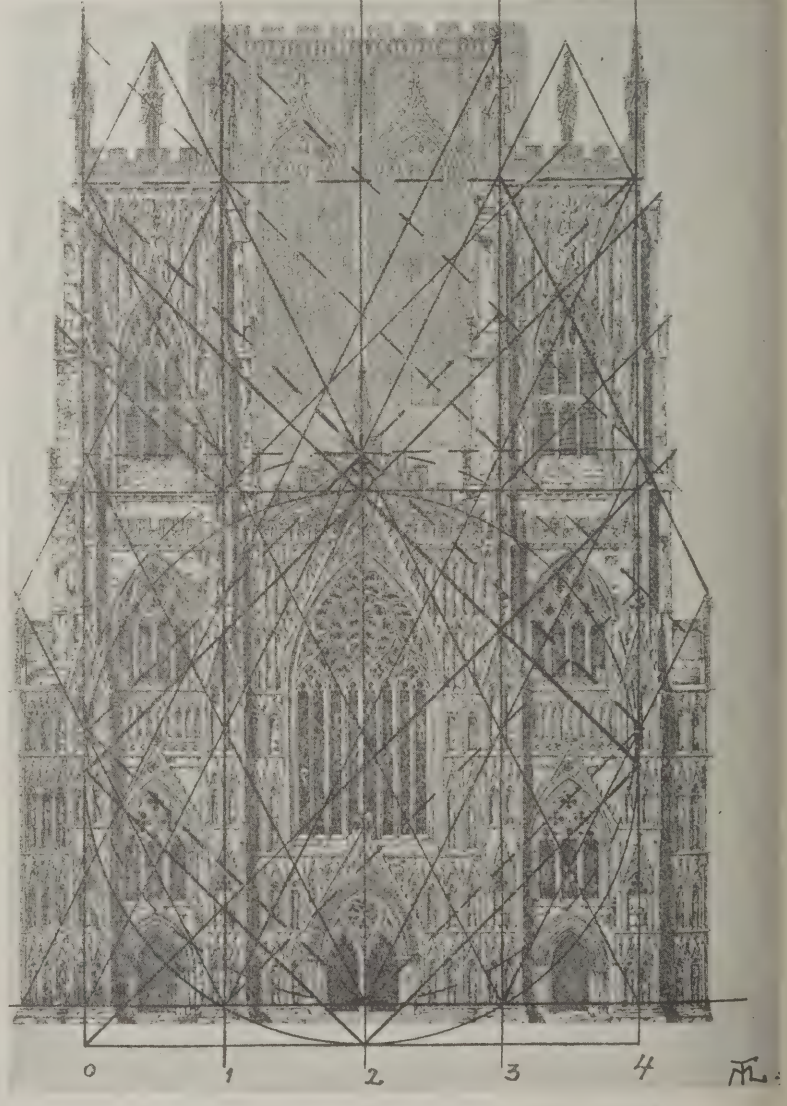
C. H. REILLY.

* Architectural Office Administration. By Francis Lorne, A.R.I.B.A. Price 5/- net. Technical Journals, Ltd., 27–29 Tothill Street, Westminster, S.W. 1.

The Architect and t Geometer

In 1915, Mr. Fredrik Macody L after placing before the Norw Royal Society of Science his views o theory of architectural design, with ticular reference to "the great Nor Gothic Cathedral of Nidaros, Throndh the national sanctuary of Norway, one of the most beautiful building Europe," further expounded his the before the Norwegian Parliament, ordered their publication in a book, w has since been done into English, a now issued by Messrs. B. T. Batsfor

Mr. Lund is of the order of thin who like to be positive and definite, of that section of them who, ha reached mathematical certainty of a tainment, seem, possibly as the resu a very natural revulsion from hard f to fall, like "vaulting ambition, w o'erleaps itself," on t'other side. any moment they may "take from the solid ground to go avia among the unsubstantial and obscu clouds of mysticism. In estimating value of such opinions as those adva with such assurance by Mr. Lund i



YORK CATHEDRAL: ANALYSIS OF WEST FRONT
(*From "Adquadratum."*)

quadratum," one's mind naturally into account the human love of icism that, in all ages and in every ty of circumstance, has delighted in e refinements on the obvious. The of mind that evolved astrology and ocus-pocus of the alchemist and the mancer is by no means extinct to- but it exercises itself on less gro- ely impossible speculations. Ap- tly we are not much, if at all, less lous than our ancestors, but we daintier appetites and more feeble rs of digestion, but the love of the erious and the marvellous seems to eradicable in human nature. Hence avidity with which Bacon-Shake- e myths were swallowed, more atten- being given to the cipher legend than e poet's works, because, to most ns, contention is much more inter- g than poetry.

sputes about buildings, on the other , can only be settled, if at all, by tigation of the buildings them- s, or at least of pictures of them. e Mr. Goodyear, with his conten- about entasis and kindred devices; Mr. Jay Hambidge with his measure- s of early Greek monuments and objects with the idea of establishing on of proportion, have made notable ibutions, if not towards the science art of architecture, then certainly rds a considerable revival of interest . A third assertor of the potency athematics in architectural design risen in the person of Mr. Fredrik dy Lund, an able and ingenious egian architect, who professes to succeeded in demonstrating the etrical system according to which Cathedral of Nidaros, as well as all arge mediæval cathedrals, and the ancient sacred buildings of anti- were planned.

a result of his patient and indus- s researches, he has formed the con- n that, "This geometrical system acred architecture is derived from onsequent and yet richly varied use ertain proportion between the width, ngth, and the height of the building, onstruction being planned upon an varying play of the elementary ar polygons and their angles." In easurements he found everywhere gle of 63 deg. 25.982 ft. All great ings were planned and shaped on the iple of the square or the triangle, or height as well as length and breadth rming to regularly recurrent geo- cal formulæ.

to the existence of the mathematical iples from which his theories are rated he has not the shadow of a of a doubt; and it is this very posi- and uncompromising attitude, to- r with the very liberal sprinkling ferences throughout the book to mysteries, to conformity to laws of niverse, and to many other recondite rs, that puts the reader on his guard st the soundness of the author's sions. About the interest of his there is no question. It is very ably n, most of the arguments being set with unfaltering skill and high ity. Many illustrations of noble ngs, or of portions of them, adorn rst volume, the second being really tfolio of plates comprising eleva- plans, and details of many notable ngs, which the author claims as illustrating his theory. It is remarkable that throughout his extraordinary work, he never once, so far as we have seen, mentions the cognate investigations of Goodyear and Hambidge. His own are more elaborately worked out than theirs, and were no doubt made independently of them; and however much reason one sees for mistrusting such elaborate theorizing about art, it cannot be denied that Mr. Lund has produced a book that is packed from end to end with architectural interest of several kinds. It will no doubt make many converts among persons whose mentality is akin to his own—those persons who, as we have said, are fond of mixing up mathematics and mysticism.

"Adquadratum." A Study of the Geometrical Bases of Classic and Mediæval Religious Architecture, with Special Reference to their Application in the Restoration in the Cathedral of Nidaros, Throndhjem, Norway. By Fredrik Macody Lund. Profusely Illustrated with Plans, Sections, Views, and Details of Notable Temples, Churches, Cathedrals, and other Buildings in Greece, Italy, Germany, Denmark, France, England, and Norway. Printed by Order of the Norwegian Parliament, and Published by B. T. Batsford, Ltd., High Holborn, London. In Two Volumes, price £5 net.

Architectural Education in Ireland

Active steps are being taken by the Royal Institute of Architects of Ireland to extend and improve the facilities provided for architectural education. The committee appointed to investigate the subject, after considering the manner in which the universities and schools of architecture in the United States, Great Britain, and on the Continent are worked, came to the following conclusions :—

(1) That the ideal system of architectural education would be a school in a university together with a period of training in an architect's office, leading up to a Degree in Architecture.

(2) That means of acquiring architectural education outside University College, Dublin, may be found desirable to meet certain objections.

(3) That a system of examinations, consisting of Preliminary, Intermediate, and Final, should be set up by the Institute as a qualification for election to membership. The standard to be equal to that of the Royal Institute of British Architects (pre-war). The duration of the whole course of studies, including the period of training in an architect's office, to be five years.

(*a*) Students beginning the study of architecture should be enrolled as probationers of the Institute. The requirements to be as follows :—

(*b*) Possession of a Pass Certificate of the Middle Grade Intermediate Education Examinations, including freehand drawing and physical science, or to have passed any other examination considered by the Board of Education to be equal thereto.

(*c*) To have matriculated in a recognized university.

(*d*) To pass a Preliminary examination of the Royal Institute of the Architects of Ireland of a standard equal to Royal Institute of British Architects (pre-war).

No member of the Royal Institute of the Architects of Ireland shall accept as a pupil any person who is not qualified to be enrolled as a probationer.

After not less than two years' study, an Intermediate examination in Architecture to be passed by the student.

Students who have passed an approved course in a University School of Architecture to be exempted from the Intermediate examination.

At the completion of the five years' course a final examination in architecture as a qualification for election to membership of the Institute, to be passed.

Students who have taken a Degree in Architecture in a recognized University School of Architecture to be exempted from the final examination.

The standard of the Intermediate and Final examinations to be equal to those of the Royal Institute of British Architects.

(4) That the School of Architecture in University College, Dublin, ought to be developed to meet the requirements of the country. That the School of Architecture should be a Department of the *Faculty of Arts* until such time as it is able to acquire the status of a Faculty itself. The course to be a five years' programme. The course would lead up to the Degree of Bachelor of Architecture (B.Arch.), which is the existing qualification afforded in University College, Dublin.

(5) That a "Board of Education" on the lines of that of the Royal Institute of British Architects, and on which the Architectural Association of Ireland would be represented, should be set up to supervise architectural education in Ireland, and that the question of providing a Course in Architecture and a certificate for non-matriculated students in a university be referred to the Board for consideration.

(6) That definite suggestions for architectural education in Ireland should be made ready and submitted for discussion at the next General Meeting of the Institute in November next.

(7) The Committee had before them a letter addressed to the Institute by the Secretaries of the Architectural Association of Ireland, on the subject of the School of Architecture in University College, Dublin, and recommend that the Governing Body of University College be approached and their views on the future development of the School ascertained.

In time the system of centralized examinations would cease, and be superseded by qualification solely through University Schools of Architecture in Ireland.

The importance of establishing and maintaining architectural education *uniformly* on the highest—i.e., University—plane throughout Ireland cannot be overrated, and this aim should be kept in view from the beginning.

At a meeting of the Royal Institute, held under the presidency of Mr. Lucius O'Callaghan, F.R.I.A.I., the President, the conclusions of the committee were discussed, and the following resolution unanimously adopted : "That this meeting desires to thank the committee for having prepared such a valuable report, and considers that, as the question of Architectural Education is one of the greatest importance to the profession and the public, the Council should proceed immediately on the lines indicated in the report."

Among those who took part in the discussion were Messrs. P. J. Lynch, W. Kaye-Parry, J. H. Webb, H. T. O'Rourke. Mr. George F. Beckett was elected honorary secretary and Mr. Stephen M. Ashlin honorary treasurer of the Institute for three years from January 1st, 1922.

Modern Buildings in Cambridge and thei Architecture*

By T. H. LYON, M.A.

IT is difficult to fix a suitable period from which to begin a lecture on the Modern Architecture of Cambridge. The first breaking away from what may be termed "traditional Cambridge architecture" took place in the seventeenth century, a breaking away which is represented by such buildings as the third court of St. John's College, the western half of St. Catharine's College, the whole of Clare College, excepting only the Master's Lodge, erected between 1705 and 1715, and the Chapel, erected between 1763 and 1768. Clare College was, however, according to Messrs. Atkinson and Clark, erected on more traditional Cambridge lines, with pointed windows and battlements, which were altered to their present state probably in 1762. I find difficulty in accepting this statement as correct. Judging from the appearance of the building, I feel that the alterations then made must have included much more than the squaring of the windows and the substitution of balustrades for battlements.

The Eighteenth Century

The architects of the eighteenth century struck an entirely new note in their work, a note quite alien to that of traditional Cambridge architecture. And if we consider such buildings as that erected by Gibbs at King's College, the University Library and the Senate House, we cannot but be thankful to these architects for their deliberate break with tradition. Anyone who appreciates architecture will, I think, admit that more than half the architectural beauty of Cambridge is due to these eighteenth-century buildings. Without them the King's Parade would be dull indeed.

But the work of the eighteenth-century architects scarcely satisfied the more romantic cravings of the nineteenth century. Perhaps scholarship in architecture had to some extent become discredited, or, it may be, that the classical type in its modern garb was too modern to be of interest to the first antiquarian enthusiasts. And the antiquarians were beginning to rule the roast. Be this as it may, with the exception of the Fitzwilliam Museum, erected in 1837, and Downing College, erected between 1807 and 1873, there has been up to our day, and there still is, a harking back to a pre-eighteenth-century period.

The work of the eighteenth century is, I am aware, wasteful from the point of view of the later nineteenth and twentieth century requirements. The apartments in the Gibbs building at King's College, fit for the sons of noblemen, are extravagant in view of the requirements of the average undergraduate of to-day.

The problem which had to be faced in the nineteenth century, and which presses more than ever now, is that of obtaining the greatest possible accommodation on an ever-restricting area.

The colleges of Cambridge are, with few exceptions, greatly in need of funds, whereas the number of students desiring university education increases year by year; and if we consider that a college of over two hundred students has housing accommodation for only forty within its walls, we do not wonder that the palatial buildings of the eighteenth century are out of favour.

After an interesting review and criticism of the various colleges and other university buildings, Mr. Lyon said: The appalling increase in the cost of building since the war has led to a type of building in Cambridge which is very much on American lines. I refer to the latest buildings erected for the purpose of the study of science. During my visit to America in 1918 I made a serious study of the architecture of that country with the view of adopting a similar treatment in England, should the opportunity of doing so occur. On my return to England I realized that the absence of brilliant sunshine would make it extremely doubtful whether or not such an experiment would be successful. In America the least projection casts a deep shadow, and this surface architecture is saved thereby from the poverty-stricken appearance which would almost inevitably be a consequence of its use in this country.

A very satisfactory science building is that erected for Parasitology, by Mr. Redfern, for here we have a quite successful attempt to adjust an American treatment to our own climate. This building is simple and altogether pleasing and, so to speak, "at home," even in Cambridge.

A building does not necessarily fail from the æsthetic standpoint merely because it does not suggest the particular use for which it was erected. On the other hand, it is very much the upholding of its purpose in use which gives the architect his best chance of presenting new æsthetic expression. The building by Professor Prior in Downing Street is undoubtedly a science building, whereas those in the court of the main block might almost as well be a new woman's college. As I have stated, I admire Professor Jackson's front to the Geological building, but this architecture is not really expressive of its use, despite the carved representations of prehistoric animals which adorn its base. There is one more science building which should be mentioned as deserving our grateful praise. I refer to the National Institute of Agricultural Botany. I hear that the architect claims proudly that it does not represent "Architecture"; but, to my mind, it has just that truly architectural proportion between mass and space which is the basis of all that makes for the "grand manner."

Of the two women's colleges in Cambridge, Newnham is rather over-expressive of its use. It has somewhat the appearance of a ladies' drawing-room turn inside out. Perhaps this effect is due the over-use of white paint; althoug taken as a whole, it does suggest that t architect could not take the idea university education for women qui seriously.

"Unnerving" the Architect

I feel that many architects who ha been privileged to leave their impre upon Cambridge have been just a litt afraid of themselves. They have not a given quite of their best. The knowled that you have a real chance of markir yourself for good or bad is always u nerving. Architectural mistakes cann be buried away in either Oxford or Cam bridge; and he would be indeed a bo man who, while adding to universit architecture, did not at times feel h confidence in himself shaken. Moreove college authorities do not make eas clients. It is a difficult matter to satis all the members of a governing bod consisting of thirty or forty, or eve twelve, fellows, without lowering yo æsthetic standard to some degree. S that it would be unfair to judge a modern Cambridge architecture upon th assumption that a free hand had bee given to the architect. As a matter fact, a free hand is rarely willingly give to an architect in Cambridge, and it is f him either to get what he wants by th exercise of patience and reasonablenes or if these fail to secure him freedom, t withdraw altogether. There are in Cam bridge two parties (reviewing architectu from two diametrically opposed stanc points) composed on the one side of thos who believe in advance and the "gran manner," and, on the other, of those wh hold fast to past methods of expressio and prefer the picturesque. The tru antiquarians are often on the side of th former party, while the general com promisers swell the ranks of the latter.

There is perhaps no body of men in th world which fears derision more than th governing body of a university colleg They will always, if possible, ancho themselves upon the rock of past age which it is irreverent to ridicule. Thu the standard most acceptable to them i just the type of architecture which fai to incite that praise from some whic almost certainly means the condemna tion of others. They are satisfied if b general consent the addition to thei college "does not hurt the older build ings." However, it is impossible to liv in Cambridge without becoming awar that a new generation is gaining autho rity, a generation which believes in it own age, and will have none of thi deadening compromise. And I feel tha there is coming shortly an opportunity fo architects of adding to the beauty an interest of Cambridge architecture to degree even more startling than tha which the architects of the eighteenth century used to such advantage.

* Extracts from a Paper read before The Royal Society of Arts. Mr. Lyon is Director of Design in The University School of Architecture, Cambridge.

Enquiries Answered

Low Pressure Heating.

Subscriber" writes : "The outline sec- (reproduced) shows a proposed low- sure hot-water heating installation; pipes being shown in their correct ths and heights. For special reasons ne-pipe' system is desired, and also rect uninterrupted rise in the main to its highest point with all radiators n off the *falling* pipe. Please say if system shown should work efficiently, make any suggestions for improve- t. The boiler proposed is one of a known make listed to heat 1,800 sq. ft adiations. The following are the ths of pipes and radiators carried :— main circulation, 140 ft.—all exposed rrying one 2½ in. and one 2 in. branch ulation; 2½ in. branch circulation, ft.—all exposed—carrying 552 sq. f radiators; 2 in. branch circulation, t.—all exposed—carrying 282 sq. ft. adiators; 1¼ in. branch circulation, ft.—all exposed—carrying short ches to radiators."

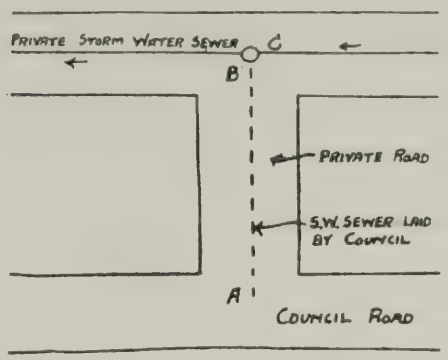
he arrangement of pipes and valves ears to be satisfactory and the boiler er sufficient. For adjustment, the rol valves should be full open to t with, and then on the side the prin- l circulation takes place the valve uld be partially closed until both cir- s are equally supplied. The tendency f course, for the water to take the r road, but the control valves will le this to be adjusted.

HENRY ADAMS.

Storm Water Sewer.

Reader" writes : "Please tell me ther the local council by laying a m-water sewer, for which permission not asked, through the private road vn on sketch (reproduced), A to B, and necting it to the private storm-water r C, have committed themselves to extent that they may be compelled erb, channel, and make up this road out any claim on the owners of the ral properties abutting on this road."

would appear to be very doubtful ther the council ever had the right ay the storm-water sewer referred to;



but probably, as it was for the public benefit, no one thought it well to insist on his private right of ownership.

I am of opinion that the existence of the storm-water sewer proves nothing, and that the council have not committed themselves in any way. Should the road eventually be taken over by the sanitary authority they will have a perfect right to call upon the frontagers to put it in order.

F.S.I.

Architects' Fees.

"Cornwall" writes : "Previous to the war I prepared sketches and working drawings for a proposed building, and when it had to be delayed I was asked not to send in my account. The building has now been abandoned. Estimates had been obtained for part of the structure, and the surveyor had quantities in preparation for the remainder. The plans included alterations on an existing building adjacent, involved the expenditure of much time, labour, and expense. Half-inch drawings were prepared, and some full-size details to aid the surveyor. In withholding payment I have lost six or seven years' interest, money has now only half its purchasing power, and Income-tax is 6s. instead of 1s. 3d. What percentage ought to be charged ? Would it be correct to charge post-war rates on pre-war probable cost ?

—I suggest that you should discuss this matter with your client. You are certainly entitled to the fees current at the time the work was done. We have all lost a good deal during the years of war, and must make the best of things now.

F.S.I.

Book on Party Walls.

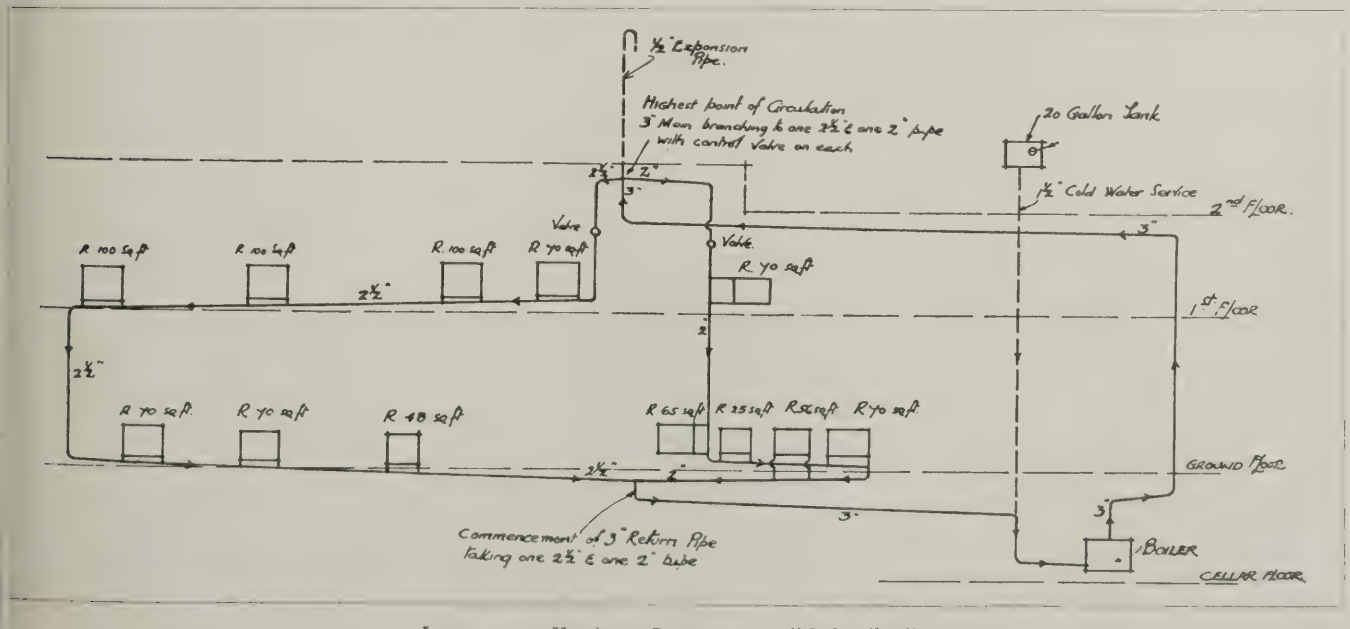
"E. J. A." writes : "Please recommend me a book which gives the legal definition of, and any information of law cases with regard to party walls. I am acquainted with the London Building Acts, 1894, but these do not apply to party structures in this area."

—I know of no special text book, but you will find some excellent matter dealing with the "right of support," etc., etc., in Parry and Howe's "Law of Easements" ("Estates Gazette" Office). The Surveyors' Institution "Transactions" contain two exhaustive papers on the subject of "Party and Party-fence Walls," one by Mr. Bedells, Vol. 24, number 181 (1891), and another by Sir P. Pilditch, Vol. 32, number 251 (1900). I believe that a perusal of the last-named article will give you all the information you are likely to need.

F.S.I.

British Sample Rooms

The first of a series of large British sample-rooms proposed to be established in leading foreign commercial centres is described in a booklet just issued by the Federation of British Industries. These sample-rooms are intended to be "all the year round" shows complementary to the existing trade fairs, and are designed to assist representatives of British firms to increase the market for their goods and to strengthen the appeal of the general advertising and propaganda work undertaken by them. Each sample-room will be in charge of a competent British manager and staff, who will explain the exhibits to intending purchasers, and inform the exhibitor of the name and address of any visitor who has shown interest in his goods. Exhibitors' catalogues and other trade literature will be distributed free to all visitors to the exhibition, while facilities will be given at the sample-rooms to exhibitors for transacting business with intending customers. The Federation, whose address is 39 St. James's Street, S.W.1, has consented to act as the British agents of the company which has been formed to manage the sample-rooms.



Low-pressure Heating. See answer to "Subscriber."

Law Reports

Obstruction of Light

Lewis and Others v. St. Helens Estate, Ltd.

Chancery Division.
Before Mr. Justice Russell.

This was an action brought by the owners of Threadneedle House, Crosby Square, E.C., to restrain the St. Helens Estate, Limited, from raising their old building on the south-east side of Crosby Square from a height of about 30 ft. to a height of about 110 ft. The plaintiffs had obtained an interim injunction, limiting the height of the proposed conditions to about 60 ft. from the pavement, pending the trial of the action. The solicitors for the plaintiffs were Messrs. Holmes, Son, and Pott, and those of the defendants Messrs. Waterhouse & Company.

Mr. T. H. Smith, examined by Mr. Tomlin, K.C., stated that he had been an architect and surveyor, practising in London for the past thirty-seven years. He explained that the plaintiffs' buildings on the north-west side of the square enjoyed very little lateral light, but that they had not objected to the raising of the Crosby Hall on the north side of the square, or some buildings on the south side, within the period of twenty years for which they claimed prescription, because it was considered that these raisings would not materially affect the light to the basement and ground-floor windows of Threadneedle House, in respect of which this action was brought. The basement offices were occupied by clerks, and were lit by windows facing Crosby Square, under a raised bulkhead in the floor above. The light in these rooms had always been adequate. When preparations were made in 1919 to demolish the low place facing them, he took particular note of the light enjoyed in order that his clients should not form a wrong impression of the facts after enjoying the extra light caused by the demolition of the building. As the new building went up, he noticed very little difference until they reached a height of about 50 ft. from the pavement, after which he noted a difference. He was emphatically of opinion that about 500 ft. super on the basement floor and a little over 500 ft. on the ground floor would lose by direct access of light from the sky, and that offices in the basement would be ruined.

Cross-examined by Mr. Clauson, K.C., he did not admit that certain windows in the rear of the room lit from areas covered with pavement lights give any useful light at all.

Re-examined, witness stated that he had approached the defendants' architects with a view to coming to an arrangement with them, to meet with an absolute refusal, because the centre of the ground-floor windows subtended an angle of only 45 degrees with the top of the proposed building, and the action was in consequence started.

Mr. Slater, V.P.R.I.B.A., drew attention to the special circumstances of the case, viz., that Threadneedle House enjoyed practically no lateral light on the basement of the ground floor, and that the building complained of was the unusual distance of about 90 ft. from the complaining building. He explained that in endeavouring to ascertain the effect of one building upon another he always tried to get the amount of direct sky area which the building enjoyed under the old circumstances, and what it would enjoy under the new. In this case he found that an area of about 448 sq. ft. in the basement floor would be deprived of direct light and would be substantially affected. He considered the loss of light to be about 40 per cent., and in view of his opinion that the basement was a badly lit room from the beginning he considered the loss of 40 ft. far more serious than it would have been in a better lit room. It would have been necessary to use artificial light in the basement to a much greater extent than before. He also considered that there would be a substantial diminution of light to the ground-floor offices, and described an experiment whereby he came to the conclusion that no useful light came to the basement offices through the windows in the rear. This consisted of standing with his back to the windows whilst opaque cloths were hung over these windows and then suddenly dropped. Cross-examined, he stated that he had never known a case in which a building 90 ft. distant was complained of. He agreed that if the sides of Crosby Square had been lower there would have been less cause for complaint, but did not consider the two raisings which had occurred made any material difference. He did not consider the angle of 45 degrees to be a fetish.

Mr. E. L. Bates, Managing Director of the British Luxfer Prism Syndicate, detailed the calculations made in respect of the original installation of Luxfer Prism glass in the basement windows and the methods of measuring sky area adopted by his company, and submitted figures giving the new and old sky areas available.

Clerks and officials working in the rooms which came to be affected gave evidence as to the diminution of light as the new buildings had progressed beyond the original height, and as to the advance in time of lighting up over their experiences in previous years.

Mr. P. J. Waldram, F.S.I., Member of Council of the Society of Illuminating Engineers, explained that the only possible method of measuring such a variable quantity as daylight consisted in ascertaining the ratio between the daylight enjoyed at any given spot, simultaneously with that which would fall upon a spot enjoying a definite unrestricted area of sky, such as the cill of an upper floor window with a practically free horizon, which enjoyed the light from a quarter sphere of the heavens. He defined the ratio which might conveniently be called the grumble point, viz., that at which any normal person would reasonably begin to grumble about inadequate daylight illumination, as being 1-250th of the light which falls upon the cill of an unrestricted upper-floor window. He found that in this particular case the grumble point in each room on each floor coincided with the position at which, at desk height, all direct light from the sky had been obscured by the defendants' buildings immediately opposite. He did not suggest that this was invariably the case, but it was usual in cases of restricted lateral light. This enabled him to dete mine the area of floor space which wou be so affected by the defendants' build ings as to be reduced from adequate well-lit places for clerical work to plac in which any reasonable clerical staff coul grumble, especially if they were calle upon to decipher writing on coloure paper. He also produced diagram showing the apparent path of the su from the windows of the two floors at a months in the year, and the extent i time by which sunlight would be shut o by defendants' new buildings.

Cross-examined, he agreed that limiting angle of 45 degrees from the ci of any window was a reasonable conve tion largely used by surveyors in negotia tions, but this would be in a street. A obstruction of 45 degrees immediatel in front of a window in a parallel stree would mean about only 33 degrees i directions inclined 45 degrees laterally and only 26½ degrees in directions in clined 60 degrees laterally. This gave window in a street a considerable amoun of valuable low-angle lateral light whic was almost entirely absent in Crosb Square. Making due allowance for th enhanced value of light coming fro higher altitudes, the usual conventio of 45 degrees in a street would mean tha a window thus obstructed would receiv about 60 per cent. of the total light whic it could receive, say, on Salisbury Plain He pointed out that although light wa more valuable from higher angles tha from lower, the backs of rooms are com pelled to take what they can get, an depend largely on low-angle light. A desk in a room distant from the windo cill by twice the height of the windo head above the desk only enjoyed ligh from the lower 26½ degrees of the sky.

He had calculated the value of the sky lost by alterations in the side building o Crosby Square during the past twenty years, and found that owing to the origina severe lateral obstruction the basement windows received only 34 per cent instead of the 60 per cent. given by the usual 45 degrees convention. The de fendants' building meant a further loss of 11½ per cent., whereas the alterations to the side buildings of Crosby Square meant in one case 2.3 per cent., and in the other 1.2 per cent., or 3½ per cent. in all. He would not have regarded these small losses as being sufficiently material to warrant an action in either case. He had measured the light before and after screening the side windows, using a photometer which would register 1-100th of foot candle, but could detect no differ ence. Asked to estimate the increased amount of artificial lighting required, he stated that he had prepared no data with regard to this point, which he did not regard as being at all a reliable criterion to adopt with regard to loss of light. Measuring, however, from the average daylight records in the Home Office report, he would expect twilight to be advanced by just over an hour in each case on clear days.

On the resumption of the case next day Mr. Tomlin stated that the parties had agreed to terms involving the reduction of the building, the payment of damages and of costs.

ondon's Latest Hotel

idon's newest hotel, the Belgravia, ed in Grosvenor Gardens, within a distance of Victoria Station, occu- ne building used as American Head- ers during the war. A tablet in e and bronze commemorating this iesigned by Sir Edwin Lutyens, R.A., .B.A., has been placed in the en- hall. The building has been ly reconstructed at a very large cost illiam Willett, Ltd., and now serves ultra modern hotel, furnished with ice, and provided with every ap- e that can ensure the comfort of rs.

ere are many suites of bed, bath, sitting-rooms, and bedrooms with oom attached. Running water and ory basins are fitted in all the bed- . The corridors are light and airy, ecorated tastefully as, indeed, is the throughout. The restaurant, with ur intercommunicating rooms de- d attractively in rose and cream, is f the handsomest and most complete kind in London. There is also a g-room for the exclusive use of the residents who may prefer privacy, the suites of public rooms and the able lounges offer the comforts of and the gaiety of hotel-life. An sting room is the Tudor smoking- designed and furnished by Mr. Clarke.

a guide to the consideration which een paid to the comfort and con- ice of guests it may be mentioned there are hairdressers, stationers, and pharmacy shops, a bureau de e, and a booking-office for motor and tours, on the premises, while a nt doctor is nearly always in attend-

ating is by low-pressure hot water, e corridors, staircases, public rooms, ories, offices, and the restaurant warmed. Ventilation is by means of the air in the restaurant being ed eight times per hour. The en is also ventilated by electric n connection with a specially de- l hood over the central range.

entirely new drainage scheme had designed to meet the new require- ; 12 in. stoneware drains fifty old were found in the building, all defective condition. These were re- l by 4 in., 5 in., and 6 in. heavy ron drains.

e domestic hot-water supply includes ndependent vertical boilers capable pplying 1,800 gallons of hot water our at 100 deg. F. There are 6 in. ght-iron mains, with oxy-acetylene d connections.

h regard to plumbing work, the provides a lavatory basin in each om (about 250 in all), 57 baths, and 80 water-closets. The waste and acks, and cold water services are all Heating, ventilating, drainage, ry, hot water, steam supply, kitchen ment, and plumbing contracts were trusted to Messrs. Stitson-White & f Westminster.

new marble floor to the restaurant ice and the various marble buffet ers and fittings were all supplied by . Chas. Walker & Co., of West- minster, who have also secured the order for an elaborate architrave and overdoor containing the American coat-of-arms and carved foliage in pure statuary marble.

Auckland War Memorial Competition

The deputation of the New Zealand Institute of Architects, which visited Auckland to meet the promoters of the war memorial competition, have been successful in bringing about a satisfactory compromise, with the result that any member of the Institute may now compete. The conditions will stand as they are, but will be subject to the following "interpretations" to be put in writing and exchanged between the parties :—

Clause 5.—"The designs will be judged by a 'Jury of Award' of five (5) as follows : two (2) appointed by the New Zealand Institute of Architects, and three (3) appointed by the Joint Committee."

Clause 7.—"The terms and conditions as to payment for the services of the architects employed to be those laid down in the scale of charges of the N.Z.I.A., viz., 6½ per cent. on the total cost of the completed work."

Clause 14.—"The closing date to be extended to May 30, 1922."

Professional Adviser and Assessors.—"The N.Z.I.A. undertakes the appointment of the assessors and a professional adviser, and further agrees that their services shall be gratuitously rendered." (Out-of-pocket expenses to be paid.)

Employment of Winner.—"The promoters agree as follows : It is the intention of the Committees to employ as architect for the works the author of the winning design, subject to the right of the Committee to not so employ him if in their opinion he is unsuitable. The Committee's decision shall be final, and no explanations necessary."

This is the first time in the history of the Institute that they have obtained full recognition of their scale of fees by a large public body. The Executive comment upon the practice of taking 1½ per cent. from the builder. The negotiations in connection with this competition revealed the fact that some members consider the new rule to be not yet operative, and that it will not be so until the conditions of contract are also amended. The Executive point out that this view is a fallacy, and rather a serious one, as any member appearing in court upon any question of fees will not now be able to plead "the custom of the profession" upon this point, as it is now a "custom" which by almost unanimous resolution of the last annual meeting has been renounced. In the meantime, and solely to meet the peculiar objection above quoted, members are recommended to insert the following clause in their specifications : "The contractor shall delete the following words from Clause 4 of the General Conditions of Contract : 'On payment as hereinafter mentioned to the architect or employer by the contractor of a sum equal to 1½ per cent. of the amount of the contract sum and which shall be paid upon the receipt by the contractor of the first progress payment made to him under the contract.'"

Concrete Houses at Hatton

It will not be long before every country squire and landowner with progressive ideas comes to regard some sort of concrete plant as essential to the upkeep and development of his estate. Most landowners have sand and gravel either on the spot or close at hand ; and unskilled labour available for turning the raw material into concrete blocks for all kinds of constructional work, from barns and boundary walls to cowsheds and cottages. With the "Winget" chain-spade mixer it is impossible to go wrong in the mixing of the sand and gravel with the cement ; and the various types of "Winget" block-making machines used in conjunction with it make every shape of concrete block and slab. Many an otherwise idle hour can thus be turned to excellent account, and the blocks in due course used for the erection of structures.

A striking example of the possibilities of concrete block construction is afforded on the Warwickshire estate of Colonel T. Marriott, at Hatton, some five miles from Warwick, and seventeen miles from Birmingham. Retiring after serving with distinction in the war—he was in the Gallipoli and Palestine campaigns—Colonel Marriott turned his attention to the housing problem. There were no cottages available for the workmen on the estate which he bought at Great Pinley, but having plenty of sand and gravel on the spot—30 ft. to 40 ft. deep—he decided to build some experimental houses in concrete.

Colonel Marriott, with no previous experience to guide him, was able to build and sell at a profit. He put up his first pair of cottages in 1919 at a low cost of £1,150 the two. These cottages stand but a little way back from the gravel pit, out of which, together with a colony of other cottages, they have literally been dug. "When you have your own aggregate (sand and gravel) and make your own blocks on the spot with a machine that anyone can work," as the Colonel points out, "you do away with many handlings and save a lot in transport." One of his first two cottages he sold to St. Dunstan's for a blinded soldier .

One of the most ambitious efforts on Colonel Marriott's estate is a detached double-fronted house which the foreman and his wife have built for themselves in their spare time. Starting on August Bank Holiday last year, and making the most of their evenings until the following October—when serious operations had to be suspended until the spring—this enterprising couple have now nearly reached the end of their labours. "The Elms"—a substantial rock-faced house of two stories, with three reception-rooms, four bedrooms, and the usual etceteras—should soon be ready for its housewarming.

Birmingham, where the shortage of houses is acute, is beginning to discover the attractions of Colonel Marriott's little colony. Practically adjoining Hatton Station, it is an easy run into the city, and standing on a plateau between 400 ft. and 500 ft. high, commanding views of four counties, it is one of the healthiest sites imaginable. Most of the houses are of the bungalow type, with the latest labour-saving devices, and are designed by Mr. Malvern J. Harvey, of Stratford-on-Avon.

News Items

Model Dwellings Closed.

Gunn's Buildings, Southwark, which have been closed, are the first model dwellings to be included in insanitary areas and condemned.

Baths for Greenwich.

Greenwich Council are considering a scheme for providing new public baths at a cost of £120,000 to find work for the unemployed.

Proposed New Theatre for Maidenhead.

Plans are being prepared for a proposed "Theatre Royal, Maidenhead," to be erected at the Marlow Road corner, covering 5,000 sq. ft.

New Theatre for Colchester.

Colchester is to have another Theatre Royal, the designs for which have been prepared by Mr. Duncan Clark, F.I.A.S. Seating accommodation (all tip-up) will be found for approximately 1,000.

Admiralty Arch Hoarding.

A hoarding 60 ft. long by 65 ft. wide is to be erected close to the Admiralty Arch. This is to be let as an advertising station by permission of the Improvements Committee of the L.C.C.

Ascot Racecourse Extensions.

Extension work has been begun at Ascot racecourse. A new block of buildings is being built and the stairway to the royal box is being moved farther back. New refreshment halls are going up near the Jockey Club stand, and there will be a new judge's box.

R.I.B.A. Alteration in Probationer Qualifications.

Applicants desirous of qualifying for registration as Probationers R.I.B.A. must in future produce three and not more than four sheets of drawings showing an elementary knowledge of geometrical, perspective, *and* freehand drawing, instead of examples of geometrical *or* perspective and freehand drawing.

Polytechnic Fatigue Elimination Day.

"Fatigue Elimination Day" will be observed, for the fifth time, at the Polytechnic, Regent Street, London, on December 5. Attention this year is to be directed on avoidable noise, and it is hoped that the essays on the subject from the Polytechnic engineers will be great in number and of vital importance. Fatigue Elimination Day was initiated in America many years ago by Dr. Frank B. Gilbrath.

National Federation of Associated Paint Manufacturers.

At the general meeting of the National Federation of Associated Paint, Colour, and Varnish Manufacturers, Mr. R. F. Clark (a director of Messrs. Robt. Ingham Clark & Co., Ltd., in association with Messrs. R. Gay & Co. Ltd.) was elected president for the ensuing year. This will be Mr. Clark's second consecutive year of office. He is also chairman of the co-operative publicity scheme which is being organized by the Association, and which has for its object the stimulation of decorating and painting work throughout Great Britain. This is the first effort to launch such a scheme in this country, but a similar campaign has been running for some years in America, and has been proved to be of the greatest possible value in developing business for the manufacturers, merchants, and decorators.

The Builders' Benevolent

"The quality of mercy is twice blessed"; and three hundred odd guests who assembled for the sixty-ninth annual dinner of the Builders' Benevolent Institution last Thursday evening reaped the reward of their charity in the "pastime with good company" which furnished the entertainment.

The function, which took place at the Hotel Victoria, was marked by a record attendance, and the result of the collection, announced in the course of the evening, also constituted a record, amounting as it did to £42 16s. This, with contributions already received, made a grand total for the fund of £2,105 6s.

The toasts of the King and of the Royal family having been given by the President, Mr. Archie B. H. Colls, and duly honoured, Mr. Gayor proposed the health of the B.B.I. and its President. The Institution, he said, was founded in 1847 to give relief to master builders and their widows who had fallen upon evil days, and a trade of the solidarity of the building trade should give it generous support.

The President in reply said that he was pleased and proud to occupy the position held by his father in 1888. During the seventy-four years that the B.B.I. had existed they had had 367 pensioners on their books, and there were forty-seven at the present moment. He expressed his gratitude for the work and support of his committee, and in particular of Mr. Bolding, who had given ungrudging service for fifty-one years.

Major Holliday, proposing the architects and surveyors, said that it was undoubtedly the most important toast of the evening. He was certain of an enthusiastic reception. Magnificent buildings were going up, but the trouble was that there were far too few of them, and trade was stagnant. The question of reviving interest in building was receiving much attention in the technical press, and the builders were so conscious of its importance that a small committee had been formed to deal with the problem. Lack of employment for ex-Service men was a blot on the industry, but the National Federation was determined to help, and a scheme was actually in operation. The assistance of architects was vital to its success, and he begged them to accept tenders only from contractors who supported it. Surveyors were their best friends, delivering them again and again from the perils of litigation, and displaying a truly marvellous omniscience. He was particularly grateful for the time and trouble they had given to the question of the standard form of measurement.

Mr. Gibson, replying for the architects, said that a large volume of work was waiting to be put on the market, but the question of rapidity of output was, even more than high costs, the main difficulty.

Mr. Theobald responded for the surveyors, and congratulated the President on the success of his appeal.

Sir Frederick G. Rice, Mr. Bolding, Mr. Ben Carter, and Mr. G. Turville Brown also spoke.

The Stucco House

"The Stucco House," the hands booklet dealing with white Port cement stucco, which was reviewe our issue of November 16, and a co which is available for inspection in architectural reading-room at No. Tothill Street, has attracted consider attention. We find that a limited nun of copies are available for distributio this country. A glance at "The St House" at once gives an idea of the pense of the production, which prohi its distribution broadcast. "The St House" is issued by the Atlas Portl Cement Company of New York. A White is marketed in Great Britain The Adamite Company of Regent Ho Regent Street, London, W. Archit among our readers who are particul interested in the use of White Portl cement and in stucco work in which t material is employed may be supp with a copy of "The Stucco House" application to The Adamite Compa who have a limited number of copie this book for distribution.

New Sports Facilities

An interesting feature of the n branch of Messrs. R. Paget and Son, L the sports house at 169 Piccadilly, i tee where golfers can practise and cor stance and driving under the supervis of a professional. The ball is fre driven with full force into a net, and practice is indulged in in privacy i lofty and spacious room underneath ground floor. A small putting gree also available alongside. The En-To Cas Company have an inquiry and monstration office at this address their hard lawn tennis courts, and information can be obtained as to costs, etc., as well as advice on sites a requirements. Although En - Tout - courts are used for championship tour ments it should not be assumed that t are prohibitive in cost.

List of Competitions Op

Date of Delivery.	Competition.
Jan. 1 ...	War Memorial at Harrogate. Premium £100, £50, and £25. Apply Mr. C. E. Riv A.M.Inst.C.E., Borough Engineer, M cipal Offices, Harrogate.
May 1922	Museum and Institute as war memorial City of Auckland, New Zealand. £170,000. Premiums amount to £1, Apply Secretary, R.I.B.A.
No Date	War Memorial in granite for Kirkwall St. Ola. Apply Mr. W. J. Heddle, T Clerk, Municipal Buildings, Kirkwall.

Blackpool War Memorial.

The design of Mr. Ernest Prestwi M.A., A.R.I.B.A., of Leigh, placed fi by the assessor, Mr. Percy S. Worthi ton, M.A., F.R.I.B.A., in the Blackp war memorial competition, has be approved by the committee. The oth awards made by the assessor were follows: Mr. H. St. John Harris A.R.I.B.A., Chelsea (100 guineas); M Wm. Cecil Young, Manchester (80 guinea Messrs. Kenyon and Livock, Lond (60 guineas); Messrs. Verner O. Rees a W. Ware, A.R.I.B.A., London guineas); Mr. W. N. Scaife, Newcast upon-Tyne (30 guineas). Sixty desig were submitted.

ednesday, December 7, 1921. Vol. LIV. No. 1405

THE ARCHITECTS' JOURNAL & Architectural Engineer

With which is incorporated "The Builders' Journal"



American Architecture Exhibition.

CHAPEL, U.S. MILITARY ACADEMY, WEST POINT. CRAM, GOODHUE, AND FERGUSSON, ARCHITECTS.

27-29 Tothill Street, Westminster, S.W.1.

Modern American Architecture. 27.—The Equitable Building, New Yo

E. R. Graham, Architect



American Architecture Exhibition.

The typical New York skyscraper is here seen in all its giant proportions. It is curious to note how classical elements protracted take on something of the character of Gothic. The attenuated form of this skyscraper would have looked equally well, perhaps better, in mediæval garb, judging by the effect of Mr. Cass Gilbert's Woolworth Building.

THE

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Notes and Comments

Headquarters Premises for Architecture

AT the R.I.B.A. premises in Conduit Street severe growing pains have supervened on chronic cramp. Happily enough, the membership of the Institute steadily and continuously expands, but the draw- to this success is that the Institute's premises are ibly outgrown. They are, at all events, no longer uate to house conveniently the necessarily augmented al staff, who, with the secretary at their head, are now unded, so to speak, in two incongruous cubicles con- d from the quondam Council Chamber. Alas for the victed Council! who now deliberate in an ante-room cannot shake off the character and traditions of a passage-way to the hall of general assembly.

ch a fine old house as No. 9 Conduit Street once was d have been quite safe from profane piecemeal altera- and makeshift methods of accommodation; but there been, at various times, overmuch tinkering with its ior. Only two rooms—those on the first floor, facing uit Street—retain the distinctive charm of the late eenth-century mode, and certainly the suave façade ins to us in spite of the threats of destruction that ruthlessly levelled at it a few years ago.

cannot be denied, however, that on the whole the ute's premises lack the architectural distinction that d mark the headquarters of British and Imperial tecture. Surely the R.I.B.A. will make no further ious attempts to adapt its old home to the new rements, but will seek the approval and assistance of hole body of its members—we would fain say, of the Profession—for a courageous and comprehensive ct to give to architecture the noble and commodious ing that shall more fittingly represent it.

such a palace of art were put up in Holland Park, say, vere to comprise under one roof the R.I.B.A., the A.A. ols, the R.A. Schools, the University College School of tecture, the Ateliers, the Society of Architects, and— ings being possible—a new Architectural University, hould get a noble building which would fittingly y the Unity of the Profession, would be an appro- memorial to that consummation, and would greatly nce the interests of Art.

ch a project as that which is here suggested is by no s prejudiced by the resolutions passed at a special al meeting of the Institute on November 7, and con- d on November 21, to the effect that the lease of ro Conduit Street be purchased for £11,000. That action does not affect the issue. Possession of such rty as this does not bind the Institute to retain it in tuity. When the time comes for building on a com- urate scale—in Holland Park or elsewhere—the really mental premises that the headquarters of architecture d be, the dream palace here foreshadowed, and the of the comparatively insignificant property now held, e almost simultaneously realized.

ndon University and the Institute could advan- usly join hands in effectuating such a project; but before such co-operation can occur, it will be necessary to assert more strongly than ever the intimate and essential relationship that subsists between Architecture and the humanities.

Any policy of pottering and tinkering into which the Institute may allow itself incontinently to drift will indicate only too plainly that extension of premises is not more urgently requisite than extension of ideas or enlargement of outlook.

The Exhibition of American Architecture

Readers may be opportunely reminded that the exhibition of photographs and drawings of American architecture, now open at the R.I.B.A. galleries, will close on Friday next, December 9. It would be a great pity to miss it, not only because of its high intrinsic interest, but because it is certain to have a strongly stimulative influence on English architecture. American methods of design and composition are not likely to be closely copied in this country. English traditions, unlike the fickle English climate, are not subject to facile, sudden, and violent changes. Nevertheless, the exhibition is decidedly impressive, and will certainly inspire us by its spirit. Our architects cannot fail to imbibe some of the enthusiasm, enterprise, ambition which these examples of American work abundantly reveal; and these qualities should incite to emulation the client as well as the architect. It is, we must confess, more obvious from American buildings than from our own that their architects are striving earnestly to give concrete expression to modern ideals and aspirations. This forward movement is conspicuously helped by the American architect's persistent effort to reduce forms to fundamental simplicity, to shed the shucks and come right to the kernel, as an American might say. Hence, as a rule, American architecture is comparatively, if not absolutely, free from redundancies and excrescences, whether of ornament or of constructional detail. Their designs are, for the most part, purely organic.

Cosmopolitan Tendencies in Art

An amusing observation, prompted by the opening of the American exhibition at the R.I.B.A. galleries, is that the British public would see in it many specimens that would be perfectly familiar to them, because the crowds that frequent the cinemas must have seen there, "not only the colossal piles associated with New York buildings, but also those charming American country-houses and clubs which have a picturesque distinction of their own, and to which many gifted are applying their inventive resources," and are, moreover, bearing in mind Ruskin's counsel to young artists "to think in shadow." Doubtless the picture-houses have had a considerable effect in internationalizing ideas about architecture as well as about many other less conspicuously admirable things. This rapidly advancing cosmopolitanism is exemplified in the pleasing fact that these American drawings and photographs were previously exhibited in Paris, and in the further facts that a British

architectural exhibition is to be held at Washington : that, moreover, British architectural students have begun the pleasant and profitable practice of spending their vacations in the States—a compliment that is certain to be returned with interest—and that an atelier is being conducted in London on French lines. Instances showing the same tendency are the kindly gifts of statuary from France (the Rodin examples), from Belgium (the "gratitude" group on the Embankment), and the fine statues of Lincoln and of Washington from the States. International amity and cosmopolitan ideas are not far apart. Further striking instances may be read into the recent announcement that two distinguished French architects—M. Albert Ferran and M. Jean-Jacques Haffner, both Prix-de-Rome winners—have accepted invitations to take up appointments in the United States. M. Ferran, who, by the way, was born at San Francisco, of French parents, but was living in Paris when the war broke out, and served with the French army, is to hold a professorship of design at the Massachusetts Institute of Technology; while M. Haffner will be professor of design at the School of Architecture at Harvard.

Diseases of Timber

Mr. W. E. Vernon Crompton, F.R.I.B.A., very usefully calls attention to the value of recent investigations on dry rot. He believes that the Chadwick lecture on the subject, delivered on November 3 last by Professor Groom in the gallery of the R.I.B.A., "marks a definite stage in the question of dry rot in its relation to architects and their work." Professor Groom quoted United States statistics from which it was estimated that adequate protection of timber against fungoid growths would effect an annual saving of seven thousand million board-feet of timber. This calculation, coupled with the steadily progressive failure of the sources of supply, arouses an uncomfortable feeling that our not remote descendants may live in a timberless, if not altogether a treeless, world. It will be news to most architects that *Merulius lacrymans*, to which hitherto the mischief has been mainly attributed, cannot act on wood that has not been previously attacked by *Coniophora cerebella*. That would be a rather comforting assurance if it did not happen to imply that we have two foes to defeat instead of one. Mr. Crompton demonstrates by means of a photograph the long-notorious fact that dry rot cannot live in dry, fresh air. Mr. Crompton does well to draw attention to this subject in so interesting and informative a way; for it is a matter of vital importance, not only to architects and builders, who have been known to suffer ruin from the ravages of dry rot, but to the community at large, whose buildings it has frequently brought down about their ears.

Burglar-proof Buildings

According to the police, impregnable buildings do not exist. An army major, whose extraordinary precautions against forcible entry proved futile, was told that "if burglars are determined to break into a house, there is no way of stopping them." It was surely always a matter of common knowledge that burglars, well-equipped with modern scientific appliances (including, in extreme cases, high explosives and oxy-acetylene) and left to the undisturbed use of them, can "break in" almost anywhere in the course of an hour or two. While it is decidedly too much to demand that a dwelling should be made invincibly burglar-proof, and resist for hours the modern scientific burglar, there is no justification for the panic that the major's complaints have created among the timid. To leave a West End house unattended is virtually to challenge the accomplished modern disciples of Bill Sikes to demonstrate their skill; but, for the comfort of the nervous house-dweller, and in mere justice to the hardware merchant, it should be stated very positively that doors and windows can be made so secure as to baffle the burglar until his efforts arouse the inmates or excite the curiosity of the police. If, however, the sweet uses of the treacle-plaster prevent the crashing of glass, or lubricants soften the sound of s or file, a thoughtful arrangement of electric or other alar will save the situation. It is now up to the enterprisi hardware merchant to show what he can do to circumv "the enterprising burglar."

The "Worrying" Client

In the ninth and concluding article of a series on "Bui ing a House," which have appeared, at weekly interva under the column headed "The Woman's View," in "T Times," there is a sensible exhortation to patient endurar of defects in planning. "Mistakes have been made. Th alas ! is inevitable, and our last word of advice is, Try r to lie awake at night worrying over what is past repa After all, the mistakes may not be serious. The house th one has built is something like a child, and it is easy to over-sensitive as to its faults and shortcomings. B strangers will look at it with less critical eyes." This w and just counsel will be appreciated and cherished by t long-suffering architect who is as yet inexpert in the use the brass-faced shield that should protect him against t fiery darts of the wicked, whose name is Legion. It is abo the only argument that promises the slightest hope mitigating the tearful complaints of the lady client who great expectations have been proved impossible of realiz tion by the distracted architect. Should this persuasi fail, there is no remedy but to retire from the field, defeat but not disgraced, and meditate on the cruel sufferings Vanbrugh under the scarifying tongue of Sarah, Duchess Marlborough, respecting the building of Blenheim.

Trade Revival: Hopeful Outlook

"What I say three times is true" is more than a jest in child's story-book. It is a faithful saying as applied to t state of trade. If everybody joins in a chorus proclaimi that trade is steadily getting worse, steadily worse it w get; while to chorus that it is improving is thereby improve it. We help to fulfil our own prophecies, wheth they be of good or of evil. There is certainly a kernel truth in M. Coué's auto-suggestion cures, his "I cans" and can'ts," and the effect of his formulæ is often discernible trade, where pessimism spells failure and optimism succe Sir Philip Lloyd Greame, M.P., the Minister responsible f the Department of Overseas Trade, is not merely optimist about the trade revival for which we are all so anxious waiting; he gives reasons for the prognostication which h hopeful attitude is helping to fulfil. Rehearsing the artic of his belief to a "Daily Telegraph" interviewer, he me tioned our rising exports, India's good monsoon, steadi wholesale prices, stabilization of certain foreign exchang greater appreciation by foreign buyers of the superi quality of British goods, more rapid absorption of stock Each item in this list he developed so convincingly that t most abject pessimist can no longer doubt that trade h taken a decided turn for the better. By no class of the co munity will this good news be greeted with more ferve satisfaction than by the architect and the builder, for no depend more completely than they on the prosperity of t trading community; nor is it needful to speak of the recipr cal action of improved trade on building, and of improv building on trade.

Electrification of Railways

It was indeed welcome news that the suburban lines the South-Eastern and Chatham Railway Company are be electrified, for this is an important step towards mi mizing London's smoke and noise, and making it a clean and serener city; making it, too, less like a place of tortu for delicate chests and sensitive nerves. But the electri cation of London lines does not by any means imp finality, nor should it be allowed to postpone indefinite two reforms for London that are ardently desired—t placing of all the railways underground, and the consequer superannuation of Charing Cross Bridge.

Modern American Architecture

Views of Messrs. BERTRAM G. GOODHUE and DONN BARBER

n connection with the Exhibition which is now being held in the galleries of the R.I.B.A., at 9 Conduit Street, Mr. Bertram G. Goodhue and Mr. Donn Barber last week delivered most interesting addresses on the subject of Modern American Architecture, reports of which appear below. Sir Edwin L. Lutyens, R.A., occupied the chair.

MR. GOODHUE said: The practice of architecture, with all its difficulties, is one of the most pleasant of lives, but talking about it on one's hind legs is quite another matter. It is ery great honour to be asked to explain the purposes tendencies of what we are trying to do in the United es, but I ask you, who have looked over the drawings photographs here (mostly photographs, thank good-), if the task is an easy one. You will bear with me don't succeed in making things clear. To tell the h, they are not so very clear to me.

ere in England you have traditions, varying, to be , in various localities, but all very definite. In America e is scarcely anything of the sort. Here your climate no great extremes, while, with us, Florida and Southern fornia are as different from New England—the land of America—and from the North-Western States Washington and Oregon as can be imagined. Further-e, we have a number of ethnic backgrounds to con-—Puritan New England, French Louisiana, Spanish ornia, and Florida. So, if you wonder at seeing such listic jumble on the walls here, make more allowances s than you would, or should, for yourselves.

is true, I think, that we use rather more styles than re entitled to, but clients, especially lady clients (as Astor hinted the other day), have very decided , and woman is more powerful, more strongly en-hed in the United States than anywhere else, except, tell me, Burmah. So when a client—a lady client—ed by her husband's wealth, comes into one's office



PICTURE OF SIR EDWIN LUTYENS LONGING FOR A QUIET PIPE.

ays she wants a Jacobean, or a Georgian, or an n, or a French, or a Tudor house, we do what she s, only asking, in fear and trembling, about the path sun, the prevailing breezes, the general average of rature, and such things, that—don't you think?—are more important than the style the house should

ust be remembered that we American architects are d into camps—very opposing camps, too. Mr. Barber ny great friend and capital, though rather strenuous, ing companion, is a graduate of the Ecole des -Arts in Paris, an institution with whose works some are not quite in sympathy—I for one.



Let me present myself with a little nosegay at this point. All my life I have upheld as staunchly as I could the British tradition, and shall continue to do so, God helping me. It is a melancholy fact, and one that I wish could for ever be kept in the background of the future, that the British element, now forming, perhaps, half of our population, is constantly dwindling, and that the other and—am I right?—less desirable breeds are increasing by leaps and bounds, so that we British—I am as purely British as any of you—will in time lose our supremacy, and even, with an unrestricted franchise, our *right to* supremacy. To me England will always be "This sceptred isle, this precious stone set in silver sea," but there are others—some five million of them—who have no such sentimental allegiance, no such ancestral bond, to keep them straight.

Here are all sorts and conditions of buildings to look at. State capitals, churches, schools, and houses. I am sorry the plans are not here, too, because with all my love and admiration for you, I do think that in practical planning we have set a pace a little faster and a little better—in certain directions at any rate. Take country houses, for instance; why, in so many, many cases here should the service between kitchen and dining-room be made to cross the entrance or staircase hall? And, too, it *does* seem to me that our "Classic" work is better than yours, in that it is simpler, more direct, and, as a rule, untroubled by pavilions, turrets, rustications, and what not.

As soon as he gets up my friend Mr. Barber will probably tell you my knowledge of the "Classic" is of no consequence, that I am a Gothicist—which I strenuously deny—and that you therefore must discount whatever I may say about the classic stuff. But take such magnificent things as Pope's Scottish Rite Temple in Washington, or McKim, Mead, and White's New York Post Office. Take these two: are they not quieter, more in the "grand manner" than anything here in London? *I do* dislike modern classic architecture, or any architecture where the style is provided by the detail. The "orders," or so I think, are nothing but a veneer, and columns are the surest way of shutting light and air from the windows that come between them. Have not we, all of us, everywhere, come to regard Architecture not as beautiful building, or, as my friend Professor Lethaby says, "building touched with emotion," but merely forms and details, foreign to the purpose of the building they are supposed to adorn, and quite foreign to the characteristics and needs of those who dwell or work within.

The other day, landing at Cherbourg, our train ran past any number of the most charming buildings. Some big, some little, all utterly devoid of "architecture" with a

capital A. They were beautifully constructed of the flat-bedded stone of the neighbourhood, with beautifully tiled roofs, and beautifully shaped windows where such were needed. Of course, the same thing is true of large sections of England, but it *is not* true of the things we architects are doing to-day, neither in France, nor England, nor America, and this is largely due, I think, to our clients and their taste—their invariably *good* taste. I call you to witness that "taste," good or bad, was a thing unknown until the Renaissance. But if you look carefully (they are rather ineffective in an exhibition) you will find some buildings of this right sort here, I trust. Take the Rogers House at Southampton, Long Island, by Walker and Gillette, a trifle more southern in character, perhaps, than its situation warrants, but surely most desirable to look at or live in. There are lots of others, too, unfortunately not here. For instance, my friend Barber has a lovely little village community house up in Westchester county that I should have liked you to see, simple, homely, and altogether charming, in which he forgot all about his Paris train ing.

We did not have much choice in the way of the drawings in this exhibition, and scarcely know what we have here, and might do better if given another chance. There are not any very little houses here, worse luck, for all the world nowadays is working out its housing problem, and I am sure you would be interested in seeing what America has contributed to the solution. Unfortunately for us, there is too much wood in our country. Where you and the French are using permanent masonry, we use clap-boards (siding, I think you call it) or shingles, and, in certain parts of the country, patented materials, which certainly may be more durable than these but are rather dubious. Our little houses are growing simpler and simpler, so, for that matter, are our big houses, but they are never quite so simple as on this side of the ocean.

We have no peasantry in America. Everybody, no matter to what condition it has pleased God to call him, is everybody else's equal. Yes, and usually superior. The small cottager has to have a parlour, as well as a dining-room, which is unfortunate for his pocket-book, but, note this, he would rather have both of them in flimsy wood than a proper combination affair in more enduring material. Shingles, instead of slates or tiles, are the usual American roofing, too, and due to the same causes, but we are *slowly* improving, or seem to be, and the little cottager has his bath that he doesn't any longer use to store fuel in. He used, in the tenements of the great cities, at any rate, to c out his plumbing to buy beer with. Now, as you kno the prohibitionists have changed all that, so he may as w let the pipes stay "put."

As for Gothic—I suppose I am expected to act as devil advocate for this much-despised "style," or let me call i rather, "principle of construction." While some of us a trying hard to succeed (look at the work of my old partne Cram and Fergusson, or that of Day and Klauder, for t most manful results) we are really not "in it" with yo There are so many lovely Gothic churches in England, th date, *not* from the fourteenth, fifteenth, or sixteenth ce turies, but from our own time, that on purely sordid a unworthy grounds I hope my possible clerical clients w never make pilgrimage to these modern churches of your Let me say right out loud that no modern, and but fe ancient churches, even approach the dignity and wond and loveliness of the new Liverpool Cathedral. I have n seen it for a number of years, and cannot this time, for am sailing on Wednesday from Southampton, but I a promising myself to bring my family over in the spri and to land at Liverpool.

American architecture is better than it was. There no doubt that in practical matters we are vastly in advan of what used to be done when I first went to New York a "kid" draughtsman. The tendencies and purposes have not dealt with, and cannot tell you much abo You can see themfor yourselves. Some of us dream of a ti to come when Architecture, as we understand the wor will cease to exist, and when such ornament as is used w be as instinctive and inevitable as it used to be. This w mean, of course, a radical change in the world's civilizatio perhaps even Government, but old as I am I still cann help believing that some day, somehow, the time w come when we shall have a style so ductile as to lend its to all our extremes of climate and all our needs, from t tiniest cottage to the greatest public building.

There is no Bolshevik or even socialistic connotation be inferred from this hope—indeed, perhaps quite t *reverse*—but the world is in parlous case, and must somehow redeemed. This may not be a primarily arc tectural problem, but it is the one that should interest more than any other. Everybody must be brought to li in warm, well lighted, well ventilated, tight buildi before his, or her, present envy of merely material thin the basis of all our modern unrest, can be changed to ha piness and peace.



American Architecture Exhibition.

HARTFORD TIMES BUILDING, HARTFORD, CONN. DONN BARBER, ARCHITECT.



American Architecture Exhibition.

HOUSES FOR GERALDYN REDMOND AND COUNTESS DE LANGIER-VILLARS, N.Y.
McKIM, MEAD, AND WHITE, ARCHITECTS.

Mr. Donn Barber's Address

r. Donn Barber, who then addressed the meeting, was ghtful; his crisp, clear phraseology cut at once like a e into one's intelligence—no easy matter. His address—vould hate to have it called a speech—lasted for more half an hour. It was quite extempore, yet it showed the construction of a well-planned, well-expressed ion. This easiness, this straightforwardness of expres- is perhaps a characteristic of all cultured Americans. It ainly is of Mr. Donn Barber; and looking at the photo- hs of three of his buildings—The "Hartford Times" ding, The Connecticut State Library, and the National dquarters Y.M.C.A. Building, New York—one can see grand quality of construction, this straightforwardness xpression, this ability of knowing just what to say, how h to say, and how to say it, is all there in his architec- achievements—concise, definite, and scholarly. More- it is all there in most of the buildings illustrated on walls of the R.I.B.A. There is nothing that is redun- ; little that is meaningless; all that is decisive. An itecture that is quite sure of itself.

r. Donn Barber said that in his own country, which was ung country, their true architectural history dated back fifty years. In two short generations a tradition had built up, and American architecture had now a firm acter of its own. Previous to fifty years ago the only lings in America of any size and architectural note had designed by foreigners; the old City Hall, New York, nstance. In domestic work there was, of course, the ial tradition, which emanated from Jamestown.

e first Great Centennial Exposition at Philadelphia, 876, marked a beginning in American architectural ry, although the exhibits were simply housed in a ction of sheds. At the World's Fair at Chicago, in Charles McKim and Withers, Richard Morris Hunt, ham, and Root, determined to do something good, the result was the "White City." The exhibition ings were given a classic architectural character, and eople who came from all parts of the country began alize something of the real civic importance of archi- re.

chitectural education in America at this time was t non-existent, but one or two men like Hunt had ed in Paris, and the influence of the Ecole des Beaux- was already felt through him in America. There were men like George B. Post, who, in his fifty years' practice, saw the growth of the American building, from a customary three stories to a customary dozen or so; and Mr. Hunt, returning with gain from Paris, inspired that Pilgrimage of young men to the Ecole des Beaux-Arts. With the return of these disciples from the Parisian school, America entered on a violent French period, and "Saw the influx of over-elaborately done French Millinery in Art." Then French books on architecture went into the country, and were widely studied. America emerged none the worse from that French phase. On the contrary, it had acquired from the French the inestimable gift of skilful planning—a great legacy.

During the last quarter of the nineteenth century building activity in America must have been positively hair-raising, and for every building put up by a trained architect, ten at least were put up by an uneducated contractor. With the growth of national civic pride came the architectural competition, as to the early days of which Mr. Donn Barber told an amusing story.

An important architectural competition was to be held, and the leading architects of the country were invited to compete. But when it came to the question of appointing a board of assessors, it was discovered that there was no one left, as all those fitted for such an office were themselves submitting designs. Eventually it was decided that the competitors themselves should form a board of assessors from among themselves. They stipulated, however, that no member of the assessory board should vote for his own design. The designs, when exhibited, proved to be all good, well conceived, and in good taste, with the exception of one, and that was very, very bad. When the votes were opened it was discovered that the worst man had got all the votes—professional jealousy, apparently, did not extend to him. The building was actually built, and is there, in all its misery, this day.

With regard to modern American street architecture, he said that their forefathers were men of little imagination, and laid out the great cities in the best and simplest way they could. They gave them the "Grid-iron" plan. It had been said that they had an architecture of façades; all fronts and no backs. It was also alleged that under all circumstances they put on a very bold front. That was true of the past, but was less true to-day. There was a



American Architecture Exhibition.

APARTMENT HOUSE, NEW YORK.
CHARLES A. PLATT, ARCHITECT

time when the elongated front was the only part which received any architectural treatment; the other three-quarters just didn't matter.

The word "sky scraper" was a word somewhat loosely used; it was a word to frighten most people. As they conceived it, New York was a city of tall buildings, with a few exceptionally tall buildings, like the Woolworth Building, the New Metropolitan, and the New Municipal Building. Of these buildings, known to the world as "sky scrapers," they were very proud.

Land near the Stock Exchange and banking centre in New York was both dear and scarce, and in the interests of economy, and in order to get greater centralization, they had to build up. Steel and the elevator had made this possible; and with the tractor elevator they could go even higher. It was infinitely easier and quicker to go up 200 ft. in an elevator than it was to walk 200 yards along the flat. They believed that tall buildings were a necessary counterpart of the big modern city, but not "sky scrapers." The "sky scraper" was something essentially American, born out of causes which were peculiarly American, and regarded for the most part in America as a necessary evil. The "sky scraper" has no place anywhere, and certainly no place in England.

There was a point in building up beyond which there was loss in efficiency of site. To build high increased the cost of the site. There was the extra cost in the substructure, and the higher the building the greater the number of elevators required to cope with the increased traffic.

Mr. Donn Barber then referred to the New York Housing Law of 1916. This was a very carefully considered resolution, under which buildings were restricted in height, according to the part of the city in which they were to be built. The height of the building was proportioned to the width of the street on which its frontage would stand. For instance, in the commercial area the building might rise on its vertical face two and a half times the width of the street. Above this height the building might go higher, providing that it was within a specified ratio of set-back to height (usually one to three: set-back 1 ft. for every 3 ft. up). In residential districts the proportion of height to width of street was less. The Law also provided for dormers, towers, and isolated buildings. Mr. Donn Barber advised us, if we are thinking of "sky scrapers," to look at the New York Housing Law.

It was interesting to take the consensus of opinion as to matters of scale. The little houses of Cherbourg were warm and tight, and inseparably related to the human beings who lived in them. They had been doing things too big in scale in America. Twenty years ago there was a craze for doing things in a large way. He said that a client, a lady, once came to him, and said she wanted a very large sitting-room. "Roughly about what size, do you think?" he asked. "About 50 ft. by 100 ft." was the answer. He managed to bring it down to much slighter dimensions, say, 25 ft. by 40 ft., and it was still big. In America there had been a return to reasonable scale. That had been brought about somewhat largely by a more scientific knowledge in the employment of steel, shorter spans and close points of support being found to give greater efficiency and economy. Thus materials and construction have returned to unify the expression of architecture.

In its manner of expression America had drawn its inspiration from Europe. The great architects had frankly adopted the best of the Old World, and readjusted them to the needs of the New World. Charles McKim had shown his genius and foresight on returning to the Italian Renaissance for guidance, believing that this was more in keeping with the American sense and tendency of things. He had left a marvellous heritage of these monuments of carefully studied detail throughout a country which is always willing to learn from the past.

He concluded his remarks with a reminder that during the war over two million Americans came over to Europe. These were influenced by our comparative delicacy of life, and they took back with them a love of the lovelines of Europe, and something of our unconscious demand fo beauty.



American Architecture Exhibition.

U.S. ARMY BASE BROOKLYN, N.Y. CASS GILBERT, ARCHITECT



VESTIBULE, TELEPHONE AND TELEGRAPH BUILDING, NEW YORK.
WELLES BOSWORTH, ARCHITECT.



American Architecture Exhibition

LEADS MAUSOLEUM WOODLAWN, NEW YORK.
JOHN RUSSEL POPE, ARCHITECT.

In reply to questions, Mr. Donn Barber said that the tractor elevator had its working machinery at the top of the elevator shaft. This effected an economy in cable and the consequent power in moving the initial weight of cable. With regard to the fire-resisting properties of modern American buildings, he said that American buildings were rendered fire-proof for all reasonable tests. Buildings had come through the grilling tests of the Baltimore fire with complete success. In reply to a question as to whether there was anything in American building regulations corresponding to our "Ancient Lights," Mr. Donn Barber said, "No."

Mr. H. M. Fletcher asked whether, in view of the excellence of the craftsmanship shown in the details of the photographs, America had formed a class of good craftsmen from among her people? Mr. Donn Barber said that all the craftsmanship in the big American buildings was done by skilled foreigners. The carving and masonry was done chiefly by Italians, and the carpentry by English and French. It was to be regretted that America was dependent on foreigners for all work of this kind. During the war, when the men were called back to their various countries, there was a severe shortage of skilled labour in America. The American was not inclined to do work of that kind, the ordinary-class American was lazy and did not like to work with his hands, preferring clerkships, etc.

Mr. W. Hall asked whether there was any system of technical education throughout America? Little or none, was the reply, but the number of trade schools was increasing. There were few Americans in the arts. The lack of interest in the attendant arts seemed strange in a country which had achieved so much in architecture.

In reply to a question from Mr. Davis as to whether sky-scrapers paid, Mr. Donn Barber said that beyond a certain point they did not.

FREDERIC TOWNDROW.

Some Comment on the Exhibition

That public opinion has at last awakened to the value of style in building is evidenced by the numbers who have paid a visit to No. 9 Conduit Street to view the designs of American architects. The collection of drawings and photographs reveals in a direct manner the mentality of America towards civics. That is to say, the attitude of those responsible for the design of buildings of the first rank, as well as the opinion of those who paid for the works. It is clear that our American friends look upon style as a commercial asset: not this or that particular style or period taken direct from a book of illustrations but buildings inherently stylish and well groomed.

American architecture stands for the most recent expression of European Renaissance. For the past quarter of a century her architects have been busy selecting choice specimens from Italy, France, Spain, and England, to be planted throughout the Western continent. To be brief the process of forming a building tradition, begun in the early years of the eighteenth century, under Georgian rule and extended after the War of Independence, is going on to-day on a scale hitherto thought impossible.



American Architecture Exhibition

DETROIT ATHLETIC CLUB, DETROIT, MICHIGAN: SWIMMING-BATH.
ALBERT KAHN, ARCHITECT, ASSOCIATED WITH ERNEST WILBY.

Detroit Athletic Club, Detroit, Michigan

Albert Kahn, Architect, associated with Ernest Wilby



American Architecture Exhibition.

In this characteristic example of modern American architecture the architects have successfully adapted the style of the Italian Renaissance to the manifold requirements of an important club-house. An interesting feature of the building is the construction at third and fourth floor levels of a big swimming-bath (illustrated on the opposite page).

For these reproductions we are indebted to the courtesy of the Editor of "Kahncrete."

America for two centuries has been experimenting in common with Europe; she has allowed her imagination to be captured by the Classic spirit, for her ruling passion is to have her cities thought beautiful. It is significant that with all the professional go-ahead Yankee-doodleism, all the latest methods of construction, the shibboleth cry of "Let us be practical," and the demand for new methods of construction, nothing novel has been achieved. This is the strength of America: her style of building is well bred, it comes of European parentage. If a great nation numbering a hundred millions has failed to produce a modern style according to some opinions, it is a good sign. It is encouraging to other peoples.

The truth is, American building is modern, it is expressive of its period; its outward trappings and manifestations are no criterion of its real expression or cast of feature. America has a style of architecture which she has obtained from Europe; she will not be content until in the course of centuries she has made use of the foundation and built up a school of her own which Europe will be forced to consider.

At the galleries of the Royal Institute both public ar architects have viewed the designs with profit. There nothing exaggerated about the sky-scrapers or the domest work. There is nothing incongruous in the aspect American Gothic. One is surprised at the English characte at the humanity of expression, no less than the sense scale, scholarship, and simplicity, which distinguishes a the works.

A. E. R.



American Architecture Exhibition.

RESIDENCE OF MR. GEORGE HOWE, CHESTNUT HILL, PA. MELLOR, MEIGS, AND HOWE, ARCHITECTS.

American Architecture and Town Plannin

Sir Aston Webb, President of the Royal Academy, to the chair at a lecture on American Architecture and Tow Planning delivered by Mr. Raymond Unwin, F.R.I.B.A., the galleries of the R.I.B.A., on Tuesday last week, aprop of the American Exhibition now being held there.

Mr. Unwin said that it would be easy to fill the whole the galleries with recent American town planning pr posals, but if in this country the work had been taken hand later than in other countries, they had the advanta of seeing what had been done, and of profiting by the expe ence of others.



American Architecture Exhibition

The extraordinary versatility of Mr. Albert Kahn is apparent from a comparison of this plate with the one which appears on page 679. In the above façade, which is little more than a massive framework, with columns employed as much for their decorative as for their structural value, he has produced a design of tremendously powerful effect.

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Modern American Architecture. 29.—The United States Custom House, New York

Cass Gilbert, Architect



American Architecture Exhibition.

This building was completed in 1908 at a cost of approximately $5,000,000.00. The main façade is richly adorned with sculpture, the four groups at the level of the main floor representing the continents of Africa, Europe, America, and Asia. They were modelled by Daniel Chester French. The statues placed above the level of the main cornice represent twelve great maritime nations of ancient and modern times, and were modelled by various sculptors, among whom were Elwell, Ruckstull, Lukeman, Tonetti, Louis Saint-Gaudens, Gelert, and Grafly. The dimensions of the building are approximately 200 ft. by 300 ft. The whole exterior is of grey granite.

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Correspondence

uilding at Cost Price

o the Editors of THE ARCHITECTS' JOURNAL.

RS,—In the replies received from some ne leading London contractors and ished in recent issues of the JOURNAL, te with surprise that one of them s 7½ per cent. would not cover estab- nent charges for last year or this; another that 5 per cent. for over- charges and 5 per cent. for use and e of plant gives no profit.

as their letters seem to indicate, percentages are on the total prime of labour and material in a contract, a at a loss to understand why the r cent. suggested is now insufficient. sufficed before the war, I maintain ould more than suffice to-day.

essrs. J. Greenwood & Co. specify verhead charges as including salaries, electric light, rent and rates, and that they have doubled or more than led. I find it difficult to accept this ment unquestioned. But, even ming that it is so, the P.C. prices of ır and material have also more than led. It therefore appears to me the contractors have overlooked the that they get 5 per cent. on a P.C. e that has increased considerably , in my opinion, than have the over- charges, Another fact to be noted is that profits, if any, are on a turnover that has doubled, perhaps trebled, since pre-war days.

Then, again, if the contractor has sufficient work to keep his staff, machinery, etc., working at full pressure, and is able to complete his jobs under contract time, would not the percentage of these charges be appreciably reduced? If the answer is in the affirmative, then the moral is obvious, and so is the incentive.

In view of the differences of opinion on this question of establishment charges, I suggest that architects, when inviting contractors to carry out work on the basis suggested in your questionnaire, ask them to state what percentage they would require for these charges; they could then select the contractor submitting the most competitive percentage, and invite him to fix up prices with the client's quantity surveyor.

Yours truly,

W. PARRY-JONES.

To the Editors of THE ARCHITECTS' JOURNAL.

SIRS,—I really am surprised to find editors in such a responsible position as yourselves dealing in no uncertain manner with my letter, which appears in last week's issue of THE ARCHITECTS' JOURNAL, without having understood what they had been reading.

Of course, you, sirs, get first word in, because your editorial appears upon page 641, whereas my letter does not pop up until page 655! Having first read your notes, the reader probably said: "And that's that," believing that you had summarily sat upon me, and I was snuffed out, as it were.

If, however, that same reader actually troubles to see what I really wrote, he will no doubt rub his eyes, as I wish you had done, and read again. He will then say, as he reads your footnote to my letter, "But where does Mr. Brown say that the editors have alleged the existence of building rings?" Again he will turn to the editorial, and note the words, "Mr. E. J. Brown appears to think—almost to assume, quite gratuitously—that we have accused the building trade of forming a ring to keep up prices." Again he will read my letter and say, "Where on earth has he said that?" Echo will answer, "Where?"

"Play the game, please," gentlemen! Do not put words into my mouth that were never uttered.

I need not repeat what I actually wrote, and which is correctly printed, and I feel sure that you, realizing the slip you have made, will "not do it again."

ERNEST J. BROWN.

[We welcome Mr. Brown's disclaimer, in spite of its bantering tone. Readers who will take the trouble to compare the ambiguous passage in his first letter with our comments on it will understand, we think, why we do not care to make any further reply to Mr. Brown's present communication.—EDS. A. J.]

To the Editors of THE ARCHITECTS' JOURNAL.

SIRS,—Although you have already permitted me to address myself to you on the above subject, I venture once again—in view of Mr. Ernest Brown's letter, published in your issue of November 30—to ask for an extension of your courtesy.

In the first place, when Mr. Brown, as the spokesman of the London Master Builders' and Allied Industries' Association, "most strongly objects to the way in which the opinions of individuals are being sought, rather than the opinion of the body representing the industry," he suggests that no one outside that organization is competent to discuss the matter.

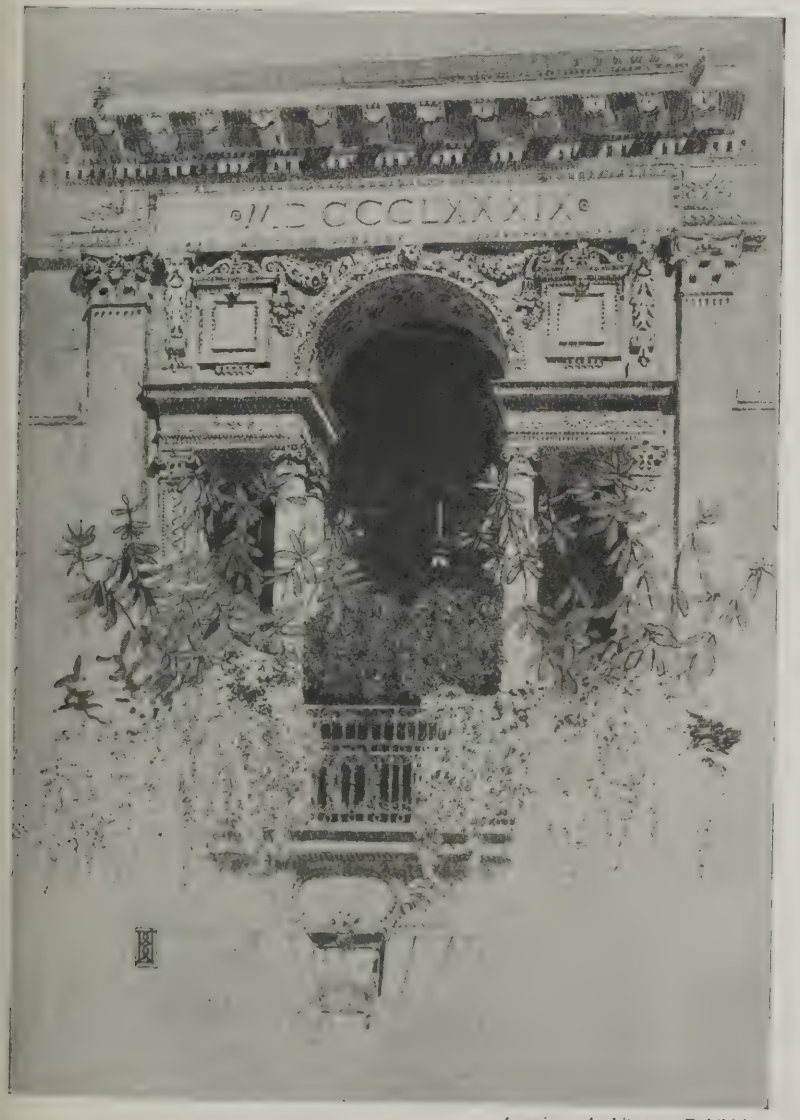
It must, however, be obvious that the experience of independent professsional men, who are in the best possible position to express unbiassed views upon the conditions now ruling in the building trade, cannot logically be swept aside as of no account.

Mr. Brown goes on to say that "for obvious reasons these individual opinions may not represent the considered views of the chosen representatives of the industry." Writing as an individual, I must confess it is not quite clear why they should, and here is another obscure point that needs to be elucidated.

How is it that, throughout the still continued period of stagnation in the building trade, Mr. Brown's organization has remained silent and inactive? It would seem that the "chosen representatives" might at least have attempted to remedy the evil by formulating an alleviative and constructive policy, or even publishing some of the salient facts for the assistance of others.

One is, as a consequence, obliged to conclude that the Association's belated suggestions have resulted from the uncommon candour with which your various correspondents have expressed themselves

F.R.I.B.A.



American Architecture Exhibition.

THE CENTURY CLUB, N.Y., 1891. (McKIM, MEAD, AND WHITE).

Mr. Playfair at the Architectural Association

THE meeting of the Architectural Association on November 28 was devoted to an interesting discussion on Stage Design, and architects and students had an opportunity of exchanging views with Mr. Nigel Playfair, who has distinguished himself from his brother managers by striking an altogether new note in the setting of his theatrical productions.

Mr. W. G. Newton was in the chair, and introduced Mr. Playfair, who cheerfully disclaimed all knowledge of his subject, and said that he hoped for a frank and free expression of opinion from his audience. All I can claim to be, he said, is a man who professes to know what he likes when he sees it, and one who professes to have the right instinct in finding or choosing the right person to do his work for him. I think I had better free sketch a map of the pleasant avenues which lead to the morass of mud and muddle in which the English theatre now finds itself, and then tell you why I think even the best of obtuse managers will soon be calling upon the architect—or at any rate the artist designer—to help them. I am talking entirely now of scenic decoration—not of the structure of theatres and stages.

The theatres enjoyed throughout the war period, and indeed almost to the present day, a time of unexampled prosperity; but with material prosperity came moral and intellectual bankruptcy. But that happy time shows ominous signs of coming to an end. There is a strong feeling on the part of playgoers generally that if they're not going to get their money's worth in some state or other, they're not going to the theatre at all; and if the managers find that they can't give them their money's worth in silks and satins and gold tassels, then they've got to come to the artist to help them, for it is the artist who alone can spin beauty from thread.

That is to put the thing at its lowest; but I really do believe that apart from the mere economics of the question, there is a wave of true feeling in this country in favour of simplicity of treatment, and I dare say you find it in architecture as I do on the stage. Given, then, the desire for the artist, where and how does he come into the scheme of things?

Now, first let me tell you, frankly and squarely, he mustn't get too uppish. The theatre in England, the theatre as I know it, lives and has its being to exhibit, for better or worse, the art of acting. In that theatre this art must reign supreme. Decoration, as I understand it, is in the theatre an honoured handmaid to Drama, which is called into being by the art of Acting; but she is a creature without separate life and existence.

Given this, and given these conditions, where and how does the artist decorator come in, and how is he to take advantage of the situation? There is the manager put in an attic by the fickle and necessarily penurious public, and told to weave cloth of gold out of straw. He calls in vain upon Wardour Street to help him. Hard as it may be to believe it, some faint notions of taste have by this time filtered down even to the great theatre-going public. I am not enough of a philosopher to attempt to debate with you the famous old question as to whether art is stationary or progressive, but at least the public taste is occasionally galvanized, and at this moment it has made a distinct forward wriggle, if it is only to slide back again into the abyss.

So now, the manager, however unwillingly, is going to be obliged to call upon the artist to help him. He wants simple effects, he wants above all things scenery that can be used for any play and throughout a play—even if he wants it from the lowest motives, because it is cheap.

My dear friend Lovat Fraser had genius that in any case would out. I hope I am the last person in the world to claim any share of the triumph which came to him, I am glad to say in full measure, during his own short life. Economy is not always the mother of beauty, but the avoidance of unnecessary ornament is a virtue. That is a lesson which is instilled into the mind, I am sure, of every rising young architect; but it is seldom practised upon the stage.



The amount of money that has been wasted upon the awful imitation tree-trunks and coloured forests which are supposed to convey the delights of Arden in the last hundred years or so would have restored a dozen "Old Vics," if it would not have built a National Theatre. I am sure it is true that if we are ever to have opera and Shakespearian performances at all in the future, the first step to take is to abolish the ridiculous moveable scenery altogether, and for the artist designer to come forward with a substitute which will do better.

Perhaps I can, without examples, warn you of certain pitfalls that beset the path of those who try to design any forms of simplified scenery—no matter what form that scenery may take. In the first place, in seeking for beauty of form and of colour, don't be afraid of considering what the uninstructed—or what you may consider to be the unintelligent—consider to be beautiful or ugly. I am on very difficult ground here, and I shall find it difficult to express my meaning; but there is a meaning somewhere that has to be considered.

Hold up two pictures to an ordinary unsophisticated audience—an audience, th is, that has not learned the right thing say about works of art—of pictorial a I mean. Let one be a picture by Marc Stone or even Dendy Sadler, the oth by Cézanne or even Sickert. The ordi ary audience, at first at any rate, will quite sure that the first picture is excee ingly beautiful, and the second excessive hideous. Well, you are quite sure th they are Philistine and altogether wron But if you are dealing with these peop you've got to try, however difficult it m be for you, to understand and even sy pathize a little with their point of vie You haven't to compromise, to kow-t to them, to deny the judgment of yo own senses; but you have, in short, educate them, and to realize that educati is a slow process.

Then remember please, again harki back to a controversial point that I ha touched on before, the object of scene is not to show to the public how clev the designer is, but to help the people w act in front of it to appear less stupi shall we say, than they really are.

Simplified scenery must of necessity in form something vague and elusive, it is going to be used over and over aga in different situations. You don't wa to have something sticking out of t middle of it, which once seen you c never forget even in your sleep—whi becomes a boring obsession as the pl goes on. There is always, someho something like this in every producti at the Old Vic, where the scenery late has improved out of all knowledge, b still leaves plenty of room for impro ment.

But the theatres where performances opera and Shakespeare are given are f and far between, and will continue to so; and also, if rumour may be trust the people who run these places do r give the artist designer great scope earning a really lucrative livelihoo No, I think you should make a fron attack on the ordinary commerc theatre.

I don't go very often to musi comedies and revues, but the lack imagination most of them show in scen and decoration is lamentable—of cour there are obvious exceptions. And think you should persuade or sha every provincial manager to have least some form of decorative scheme built or draped—in which any imagi tive play or opera can be given witho offence. Yes, and every music hall t so that the railway companies may cheated of their illicit gains for carry unnecessary rubbish at high prices all o the country, and that the people w really matter—the artists—may have chance of travelling in comfort and ea ing a living wage.

How far the training of an archit helps a man to be a good scenic desig it is not for me to say. I have seen so thoroughly bad scenery designed by thoroughly good architect; but then, o on a country walk I came across a ho designed by a famous scenic artist, a that was much worse.

In the course of the subsequent d cussion Mr. Playfair made the interest suggestion that a school of stage des should be attached to the architectu schools, and that stage designs sho become a matter of competition amo the students.

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Modern American Architecture.



WATER GARDEN PAVILION, RESIDENCE OF J. OGDEN ARMOUR, LAKE FOREST, ILL.
ARTHUR HEUN, ARCHITECT.



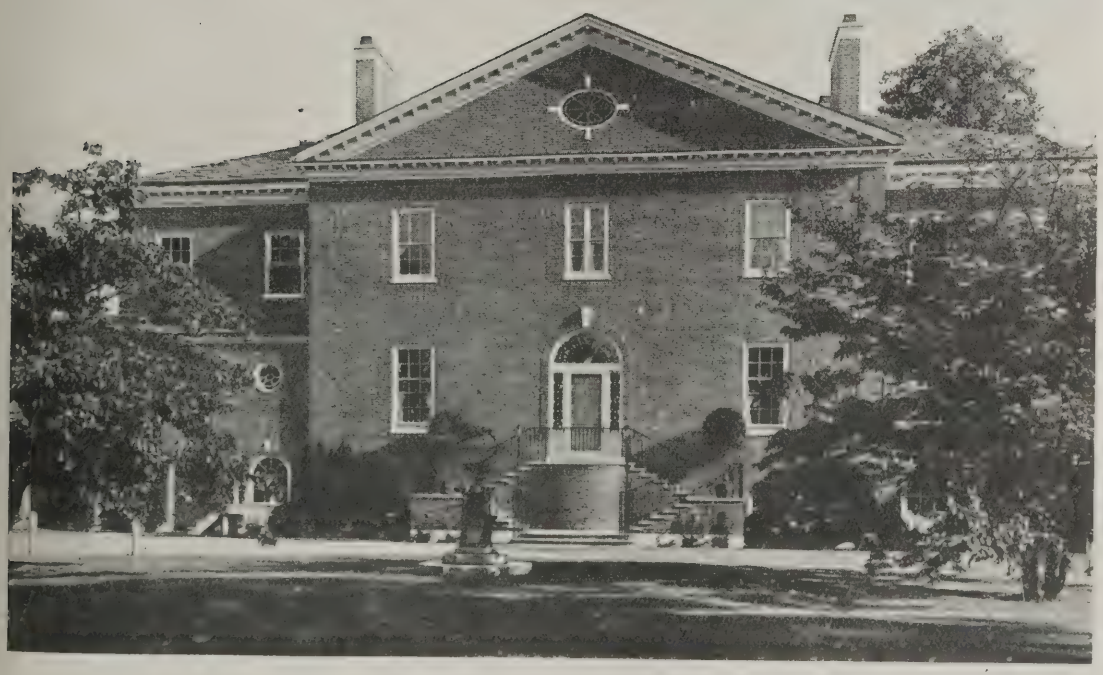
RESIDENCE OF BERTRAM G. WORK, OYSTER BAY, L.I.
DELANO & ALDRICH, ARCHITECTS.

The above photographs of some typical examples of modern American domestic work are

ne Examples of Domestic Work



RESIDENCE OF MURRY GUGGENHEIM, ELBERON, N.J.
CARRÈRE & HASTINGS, ARCHITECTS



BURDEN HOUSE, SYOSSET, L.I.
DELANO & ALDRICH, ARCHITECTS.

Exhibition which is being held in the galleries of the R.I.B.A. at 9 Conduit Street.

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American Architecture Exhibition.

The monument to Mary Baker Eddy takes the unusual form of a circular colonnade open to the sky. Mr. Swartwout has entirely avoided copyism, but has yet produced a memorial that is full of the classic spirit.

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Temple of the Scottish Rite, Washington, D.C.

John Russell Pope, Architect



Municipal Office Building, N.Y.

(Old City Hall in Foreground)

McKim, Mead, and White, Architects



The originals from which the above reproductions are taken are included in the Exhibition of American Architecture which is now being held in the Galleries of the R.I.B.A., at 9 Conduit Street, W.

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ıntity Surveyors' Fees ɔr Housing Schemes

e Ministry of Health have issued a ·al Housing Memorandum (No. 58) ·egard to the fees payable to quantity yors in private practice for the pre- ion of bills of quantities in connec- with State-aided housing schemes. :erms of payment, which have been ·d at in agreement with representa- of the Surveyors' Institution and of)uantity Surveyors' Association, are lows :—

I.—Method of Calculating Fees.

For the purpose of calculating fees ɔle under General Housing Memor- 4 or 31, or under Part II. of this ɔrandum, the whole scheme of the authority should be taken as the except in cases of the conversion of ng buildings into flats or the erection ɔck tenements of more than two rs, when the works, so far as they are parate sites, will be considered as ate schemes).

Where bills of quantities have been red by more than one surveyor for s included in a local authority's ıe, the total fees payable for all the prepared by all the surveyors ed will be pooled and apportioned ata between the surveyors. If the nt so apportioned to any surveyor short of the minimum fee described e next paragraph, an extra payment ess of the general fees payable under al Housing Memoranda 4 or 31 will ade to bring the apportioned fee up minimum for that surveyor.

The minimum fee referred to in the ding paragraph will be calculated on llowing basis :—

(*i*) A fee of 2½ per cent. on the first 5,000 and 2 per cent. thereafter will e assessed on the cost of the houses ncluded in one block of each separate esign for which separate and dis- inct bills have necessarily been pre- ared by the surveyor in question. uch ordinary variations as are neces- ary to avoid monotony of appear- nce or mere change of aspect of lar- ers or the like will not for this pur- ose be regarded as separate designs.

(ii) To this fee will be added a fur- her amount of $\frac{1}{8}$th per cent. on the ost of the remainder of the houses or which the bills under (i) have been repared, provided that all such ouses have been included in the pproved lay-out of the section of he scheme allotted to the surveyor n question.

-Abandoned or Curtailed Schemes.

The fees payable under General ng Memoranda 4 or 31 respectively pect of quantities prepared in cases ch the houses are not erected or are ed in number, have been the subject cussion between the Minister and the entative associations of the pro- n. As a result of considerable ation it has been agreed after full eration of all points of view that a ent in respect of the abandoned s of one-half of the fees which would been payable if the houses had been d from these quantities would be a d equitable settlement of the ques- oth in the public interest and in the interests of the members of the surveying profession.

(*b*) The cost per house for the purpose of determining the fees payable as above should be determined as follows :—

Where contracts have already been let for houses on the same site, the contract price for those houses shall be deemed also to be the contract price for houses of similar types which are abandoned in respect of that site, subject to the following maxima (any excess over the maxima to be ignored) :—

Non-parlour type with two bedrooms ..	£750
Non-parlour type with three bedrooms ..	£850
Parlour type, three bedrooms	£950
Parlour type, four bedrooms	£1,050

Where no tenders have been accepted for houses on the site, the contract price shall be deemed to be the average price (subject to the maxima referred to in the preceding paragraph) at which contracts were approved by the Minister during the month in which the quantities were prepared (as shown by the date of the quantities). This figure will be supplied by the Ministry on application in such cases.

(*c*) The above arrangements will apply to all houses included in the approved lay-outs or sections thereof so far as complete bills have been prepared on the instructions of the local authority from approved plans and specifications.

(*d*) In the event of further houses being erected from these bills of quantities at a later date, the balance of the fees payable shall be the difference between the fees on the tenders then accepted and the amount already paid for those houses.

III.—General.

It is understood that owing to the doubts which have existed in the minds of local authorities as to the application of the provisions of General Housing Memoranda Nos. 4 and 31 payments to surveyors have in some cases been delayed. In view of the further information contained in this Memorandum, local authorities will be able to make prompt settlement or substantial payments on account in respect of the amounts payable to their quantity surveyors for the preparation of bills of quantities.

Copies of the Memorandum may be obtained price 1d. net, at H.M. Stationery Office, or purchased through any bookseller.

Windows of York Minster

The recommendations made by a small body of experts with regard to the preservation of York Minster windows are to be adopted by the authorities. The recommendations are confined entirely to the glass of the windows, and refer to the borders of the lights, leading, cleaning the glass, cementing and materials for cementing. Among the signatories to the report are the Provost of Eton, and Messrs. G. P. Hutchinson (of Messrs. Powell's Glass Works), F. W. Troup, Noel Heaton, and A. R. Powys (representing the Society for the Protection of Ancient Buildings).

Architects' Fees for Housing Schemes

A meeting of the R.I.B.A. was held on Monday night last week to consider the following resolutions :—

1. That while re-affirming the objections to Memoranda Nos. 51 (D) and 52, which led to the Resolution of July 4, 1921, this meeting recognizes the bonafides of the Ministry in putting forward Memoranda Nos. 51 (D) and 52 under the impression that the R.I.B.A. had agreed thereto.

2. That the Ministry of Health be requested to amend the terms of the Memoranda in question.

3. That three members be appointed with full powers to agree with the Ministry upon a scale for abandoned work within limits prescribed by the Practice Standing Committee in consultation with interested architects.

Mr. Paul Waterhouse, President, occupied the chair, and the resolutions were moved by Professor S. D. Adshead, F.R.I.B.A.

Professor Adshead admitted that the proposals he was putting forward amounted to the whitewashing of the Ministry of Health's action, but this would have to be done before the Ministry would reopen negotiations.

Mr. Kennard said that he did not consider the Ministry should be whitewashed. Personally, he felt that rather than climb down in such a way they should make a test case and fight it before the courts. A friend of his had characterized the Ministry of Health as the biggest sharp-practice firm in this country.

Mr. Maurice Webb said that he felt the profession ought to do the best it could for housing, and remember that fees were not the only thing, and they should consider that when voting upon the resolutions before them. It would be far better to settle it now than in the courts.

After much discussion the resolutions were passed in the following form :—

1. That while re-affirming the objections to Memoranda Nos. 51 (D) and 52, which led to the Resolution of July 4, 1921, this meeting recognizes the bonafides of the Ministry in putting forward Memoranda Nos. 51 (D) and 52 under the impression that the R.I.B.A. had agreed thereto.

2. That the Ministry of Health be requested to amend and redraft the terms of the engagement of architects in connection with housing schemes, in conjunction with an accredited representative of the Institute.

3. That for this purpose three members be appointed with full powers to agree with the Ministry upon a scale for abandoned work and upon the matters referred to in the second resolution within limits prescribed by the Practice Standing Committee in consultation with interested architects.

4. That the names suggested—Messrs. Davidge, Welch, Francis Jones, Sydney Pearks, William Woodward, H. T. Buckland, and C. M. Crickmer—be referred to the Practice Standing Committee for consideration, and that the Committee be requested to consider these names and others, and to submit these names to a general meeting with a view to the selection of three of them by ballot.

Training the Concretor

SOME interesting suggestions with regard to a scheme of systematic instruction in the theory and practice of concrete were made by Mr. E. Fiander Etchells, A.M.Inst.C.E., A.M.I. Mech.E., Hon. A.R.I.B.A., in the course of his presidential address to the Concrete Institute. "It is a remarkable fact," he said, "that although there has been an enormous development in concrete work during the last few years, and although it takes a prominent place in all forms of construction, so much so that concrete may now be regarded as a distinct and individual industry, yet little provision has been made for systematic education in concrete theory and practice." Proceeding, he said: "What we want is a new type of mechanic, the expert concretor and block-setter. Up to now the education of the concretor has been left very largely to chance. Of course, technical institutions include concrete as part of their engineering courses, but this is only incidental. We want to see more than this. Also, their courses have appealed rather more particularly to what are called the directing classes rather than to the artizan class, who in the end are responsible for good workmanship, the directing classes being mainly responsible for good design.

"We want to see, not only good design, but good workmanship as well, and we want to see restored the old pride of workmanship, which unfortunately seems to have died down in certain quarters. Men are often not so proud of their calling as they ought to be, and, with a view to the future of the industry, it is imperative that provision be made for training the young, and this, I think, might be done through the various technical schools and institutes throughout the country.

"What is really necessary is that in the curriculum of these institutions concrete should be regarded as an independent subject, and courses, both in simple theory and in practice, should be arranged, since, in order to secure thorough efficiency and intelligent workmanship, the two must go hand in hand. The details of such a scheme would have to be worked out by a committee, but the outline, I imagine, would be something as follows:—

"In the first place, the syllabuses of technical schools are drawn up by the various county and local education authorities throughout the country, and have to be approved by the Board of Education. The first step, therefore, I think, would be to approach the Board of Education in order to ascertain whether the suggestion for such courses, if made, on the part of the institutions, would be received with sympathy, because, if not, the whole thing would probably fall to the ground, since the various technical schools are largely dependent for their existence upon the Government grant, and they are hardly likely to take up unremunerative subjects.

"The next step, supposing the Board of Education agree, would be to approach the governing bodies of the various suitable technical schools, colleges and classes, both senior and junior, with the suggestion that a short course of instruction, say six months each year—I do not think more would be necessary—in the theory and practice of concrete making and moulding and block-setting, be included in the curriculum, such courses to be carried out under the Board of Education regulations for technical schools, etc., in order to qualify for the grant.

"Then I should suggest that a small committee of the Concrete Institute be appointed to draw up a suggestive course on modern lines, which might be submitted to the authorities in question. This should include lectures on theory, lantern slides and films, instruction and practice in manipulation, visits to concrete works, where students could see the work of concreting in actual operation, and the exhibitions of concrete products.

"The object of these courses would be to produce skilled concretors and block-setters, who, by passing an examination and gaining a certificate, would have a definite status in the industry, which is already in existence, but which has yet to be organized. It is highly desirable that that organization should occur, because those of you who have been on building estates have occasionally discovered that when concrete houses are being erected the bricklayers say this is their job, and they will go out on strike unless trade union men are employed in setting blocks. Now, then, there is much in connection with the erection of concrete houses which can be done by unskilled labour.

"Many people in this country have been making an endeavour to find work for ex-Service men, but they find an obstacle in the trades unions, who will not let these men work unless they are members of the union. How, then, can you get some agreement between these two opposing ideals? The ideal of trade unionists is that all workers should belong to their trade union or to some union. Now, it is desirable that all the ex-Service men who are willing to work should be given the opportunity to work. Would it not be advisable to have a block-setters' union, even though the men could not have been trained as apprentices for bricklayers? There is the question of training involved. The bricklayers' union says, 'No, we want these men trained; they have not served their apprenticeship. This man before the war was a butcher, a baker, or a candlestick maker; how can he be a good bricklayer?' Therefore, I say, let these men come into some block-setters' and concretors' union, and let them work side by side and in harmony with the bricklayers. We of this Institute can hardly put forward this suggestion, because, as a scientific body, we do not deal with questions of trade or politics, but the president is given an opportunity once a year to express his own personal opinions on such matters.

"There is also another feature. It is hardly likely that the question of this concretors' union could be put forward from the masters' side, because, if it were done, then would the other unions spy the cloven foot of the capitalists. They would say, 'This is a scheme for the oppression of the workers; it is a scheme to reduce our salaries and lengthen our hours; they are trying to get an opposition camp to the bricklayers.' Not at all. We want to find work for them all, and the union could best be started by one of themselves, because then they would see that it was entirely free from that terrible thing known as the capitalist taint. Until harmony can be found between the unions, and until work can be found the ex-Service men, I see very little h of there being continued peace, prosper and good trade in this country. This one of the many essential things, an throw this suggestion out for what it worth, hoping the artisans, or some them, even a few among them, will t up the case and found a union of th own. We do not object to the unio we only ask them to keep their pledg and allow those men to work who willing to work. Sometimes, if not oft a man has thrown up a business which ran before the war, and he is not n allowed to work on something which can do quite well.

"With regard to the examinatio these, I suggest, should be carried under the auspices of The Concrete In tute, who already have the machin for the conduct of examinations. Th might be held at centres, or in the insti tions in which the instruction has b given. Whether an entrance fee sho be charged is a detail which could decided later.

"Such a scheme as this could not carried out in its entirety at once, b like other educational schemes, wo have to be a growth and developme It might, therefore, be advisable in early stages to limit its scope to the be known technical schools and institu before applying it to all. Such is suggested outline of a scheme which carried out, would pave the way towa the organization of the industry— formation, so to speak, of a new cr which would, in time have its own gra and develop on its own lines as ot trades have done. If such a scheme w carried into effect, safeguards for workers could be provided, and foundation laid for thoroughly sou practice in an industry which will doubtedly play a still more promin part in the future than it does to-day."

A.A. New Members

At the last ordinary general meet of the Architectural Association following new members were elected

Mr. Albert Casse	Mr. W. R. Gardiner
,, D. R. Vadgama	,, P. D. Stonham
,, W. B. Nicholls	,, A. F. Thompson
,, N. E. Scheiferle	,, G. H. Bond
,, A. F. A. Trehearne	,, G. P. Noble
,, Pablo Gutierrez	,, F. E. Green
,, C. F. Norman	,, P. F. H. Cardew
,, F. S. Reynolds	,, H. H. Khan
,, R. A. Cornell	,, H. Hyland
,, J. R. Sykes	,, F. Napolitano
,, Zwi Sirotkin	,, A. M. Peermahom
,, Henry T. Hodges	,, E. M. K. Ellerton
,, I. U. Englefield	,, L. H. Rawson
,, J. Clack	,, W. J. A. Osburn
,, F. J. Buckland	,, H. A. Mealand
,, S. S. Careless	,, R. M. Smith
,, L. N. Hill	,, D. A. John
,, J. G. Birkett	,, J. R. G. Fison
,, C. W. Statham	,, H. E. Bennett
,, W. R. F. Fisher	,, H. J. Louw
,, J. A. Black	,, F. J. Adams
,, J. E. Ryhiner	,, L. T. Obel
,, C. H. C Bell	,, Henry Rudland
,, W. S. Trent	,, S. C. Clark
,, F. B. Blomfield	,, R. D. Manning
,, E. Rugg	,, S. E. Tramcourt
,, D. H. Beaty-Pownall	,, A. T. Scott
,, H. A. Airy	,, H. D. M. Gilbert
,, G. D. Gibson	,, S. R. Willimott
,, Maung Tha Tun	,, H. W. Martin-Fa
,, E. F. Goldsmith	,, F. J. Lenton
,, E. Marcantonio	,, Morris Leedham
,, C. Pawley	Mrs. B. S. H. Fisher
,, J. G. Wilson	Miss M. E. Fetch
,, E. T. E. Nash	Mr. A. J. Dicker
,, R. S. Paul	,, I. Florey
,, W. R. H. Curtis	Miss D. A. Lewis
,, W. E. Palmer	,, R. Tinker
,, R. Erith	

A report of the paper on "Stage Desig read before the meeting by Mr. N Playfair is published in another part this issue.

Law Report

resting Repairing Covenant Dispute

Scott v. Hancock Bros.

Nov 24–25. Official Referees Court.
Before Mr. Edward Pollock.

e plaintiff in this action was Wm. is Scott, of East Street, Prittlewell, . He sought to recover from Messrs. ock Brothers, of Tyler's Avenue, end-on-Sea, £157 13s. 6d. in respect apidation of 4 East Street, Prittle- and £13 in respect of arrears of rent. defendant brought into court 6d. in respect of the claim for rent 47 6s. 6d. for the dilapidations, for , however, they denied liability.

om the statement of Mr. Hinde, for laintiff, it appeared that the agree- the breach of the repairing covenant ich was alleged, was made in 1911 by ett Webb, the tenancy being in the lace for three years certain and after- from year to year. The plaintiff as Mrs. Webb's successor in title. 19 Mr. Scott bought the premises a statement made at the time of the hat defendants would at once give ssession. He saw Mr. Hancock on natter subsequently and had a con- ion with him in regard to giving up ssion, and as he did not leave a pondence took place on the subject en the defendants' and plaintiff's ors in the course of which the various of dilapidation required were re- to. The defendants made an offer in settlement of all claims. The iff refused to accept this and offered, ut prejudice, to accept £20. This efendants would not pay, and they ained that plaintiff had taken pos- n of the yard. The plaintiff, how- said that he had defendants' per- m to take possession in order to do drainage work, and defendants on ther hand said that plaintiff had l out their tenant of the yard and so red them of the rent. The premises old, and at the time when defendants enced their tenancy had been vacant vo years. Prior to that they had used as a grocer's shop and were a state of repair such as a private nt would require. The premises aken by the defendants to be used warehouse, and the grant of the cy was on consideration that the rd should not be called upon to do onsiderable amount of repairs, and he tenants should have the premises ow rent in consideration of the fact hey were taking upon themselves bility of repairing and keeping them ir condition. The evidence, said l, would go to show that the ge was such as might be expected the place was used for the storage vy furniture.

dence was given bearing out counsel's ent and as to the condition of the when the defendants took possession e details of the repairs which plaintiff ed as necessary when they left.

he suggestion of the Referee it was by the parties that he should t the premises, and consequently ollock proceeded to Southend for urpose.

the hearing being resumed on Mon- November 28, further evidence as to aracter of the dilapidations was given.

The Referee, in giving judgment, said he thought the £47 6s. paid into court sufficient to satisfy the plaintiff's claim. The claim for painting and papering did not seem to be applicable in this case as all defendant had to do was to keep the premises in such repair as they were in when they took them. There was nothing to satisfy him that all the damage was done during defendants' tenancy, and it was clear that the place was in a bad state. The drainage was mainly due to fair wear and tear, and the result of time. The landlord must show damage done by the tenant, and in this case he had not done so. He could not see that any actual damage had been done by the tenant. Such things as papering and painting were mere decorations for which defendants were not liable. There would be judgment for the defendants on the claim and defendants must pay the costs up to the date of payment into court; plaintiff would have to pay the costs incurred afterwards. The money in court would remain until after taxation.

Architects and Architectural Journalism

Mr. W. T. Plume, editor of "The Builder," in reading a paper before the Liverpool Architectural Society (Incorporated), said that a recent writer, an architect, had said that no more than 10 per cent. of an architect's work came under the definition of Art. If that expressed the facts, they got an indication of the relationship which must, as things were, exist between the architectural press and its public, and the extent of the influence of that press with both architects themselves and the public at large. If it were a business, a profession, and an art, then artists must not be surprised if they found business considerations formed some part in the kind of architectural journal produced, and business and professional men must expect to find that the art side of their work took its place too.

One criticism urged against the architectural press was that it too often illustrated badly designed buildings, and that it should publish nothing but good work. Certain works of the past always excited their admiration, and there were many fine buildings erected in our own time which would probably be as much admired by posterity as by us. But there were others, and of those it might be said that they served their purpose, that they were conveniently planned, that they satisfied the by-laws and the client, that they were in fact the outcome of certain inflexible laws which had not left the architect free, and which in fact, had often stultified his effort. Should they not have recognition as the earnest efforts of living architects? As completed works they could not shut their eyes to them, and whether they were published in the press or not, the public, including architects, saw them.

On the whole it appeared to be a fairer and more logical policy to illustrate work which had been or would be carried out and leave the profession to judge it as it might. It might be a stimulus to some if good, and if bad it would serve to indicate the need for improvement in the quality of design. He appealed for a little more public spirit on the part of architects who were responsible for the best modern work, but who here and there withheld it from publication. By their work and the standard they set their influence was considerable, and by its publication they could do much to improve the quality of design.

The architectural press had played its part not only in assisting men in their work by what it printed and illustrated, but by the prominence which it had given to the work of young and unknown men —and even well-established men too. That this assistance was recognized, acknowledged, and valued by most architects he knew, but there were those who had profited greatly by that publicity who did not remember the first stages of that success and how much they had benefited in their time by seeing the published work of leading men, and in having their own work seen by others.

The architectural press appreciated the greatness of the architect's profession and the importance of the building crafts, and it was willing to assist to the fullest extent in broadening and extending public appreciation, so that in time the public would understand how important to them was the work of architects. That the public did not realize this today was, he feared, the architects' fault rather than that of the press, but that was no reason why they should not work together to create this understanding and secure at least as much appreciation for fine building as was shown by the American public. The education of the public could not come before the proper education of the architect. If the architects were qualified to lead the public would follow. Mr. Gilbert W. Fraser, F.R.I.B.A., the president, occupied the chair.

R.I.B.A. Council Meeting

The following notes are from the minutes of the last Council Meeting of the R.I.B.A. :—

Reform of the London Building Acts.—The Council received an interim report from the London Building Acts Committee, and referred it to the Art, Practice, Science, and Town Planning Committees for consideration and report.

The Staff for R.E. Services.—The Council directed that a letter should be sent to the War Office protesting against the unsatisfactory status of architect members of the Staff for R.E. Services.

Government Architects in India.—The Council directed that a letter be written to the India Office pointing out the effect of recent legislation on the status and prospects of Government architects, and urging that, in the interests of the efficiency of the service, steps should be taken to guarantee a greater security of tenure for these officials.

The Smoke Abatement Exhibition, 1922.—Mr. Ernest Newton, R.A., was appointed to represent the R.I.B.A. on the Council of the Smoke Abatement Exhibition for 1922.

Retired Fellowship.—Mr. Walter Pott, F.R.I.B.A., was transferred to the class of Retired Fellows.

Mr. William Walcot's Etchings.—A cordial vote of thanks was passed in favour of Mr. William Walcot and his publishers for their gift of framed reproductions of fifteen of Mr. Walcot's classical compositions.

A Guide to the R.I.B.A. Examinations

It will fulfil a useful purpose to give here an outline of the requirements for an Associateship of the R.I.B.A. For further particulars the reader is referred to the pamphlet entitled "Membership of the R.I.B.A.," which has just been issued, price 1s., at 9 Conduit Street, W.1.

In the first place, evidence is required that the candidate has reached a certain standard of general and technical education, or has "attained a stage towards it." To obtain the Associateship the candidate has normally to pass three stages; he must qualify, I, as a probationer; II, as a student; III, as an Associate.

I. To qualify as a probationer, the candidate must produce a certificate from one of the recognized schools of architecture, countersigned by the external examiner, to the effect that the candidate has passed the entrance examination in Elementary English Composition, Arithmetic, algebra, geometry, mechanics (or physics), history, one language other than English, and drawing. Other applicants for probationership must make application on the official form, which must be accompanied by the admission fee of four guineas (returnable if application is refused), and produce satisfactory evidence of general education, embracing the above-mentioned subjects, and in this case drawings must be shown.

II. Qualification as a student (fee five guineas) implies exemption from the R.I.B.A. Intermediate, provided the Board of Architectural Education accept as testimonies of study, or the external examiners have already approved, work done in (generally) a three-years' course at the Architectural Association Schools, in the School of Architecture of the universities of London, or Liverpool, or Manchester, or Sheffield, or similar qualifications from Cambridge University, Edinburgh College of Art, and the Heriot-Watt College, Aberdeen (Robert Gordon Technical College), Cardiff, or Leeds School of Art. In a note it is stated that in all schools thus recognized for the purposes of the Intermediate Examination, a written examination to the approval of the external examiner is to be held in (1) History of Architecture; (2) Applied Construction; (3) Theoretical Construction; and it is further laid down that such schools shall submit annually for exhibition at the R.I.B.A. one design from each student who is exempted.

Candidates who have been trained at Imperial or foreign schools may, on the production of satisfactory evidence, be exempted from the whole or from part of the Intermediate Examination; and the following schools are mentioned as providing courses which are recognized as carrying exemption: McGill University and Toronto University, Canada; and Bombay School of Art, India; and there is a special examination for architects of not less than twenty-five years of age working overseas. For particulars the pamphlet must be consulted.

Section III gives details of qualification as Associate—that is, of the Final Examination. Paragraph I deals with exemptions granted to candidates who have fulfilled an approved five years' diploma or degree course such as the courses established by the Architectural Association, London; Liverpool University; Glasgow School of Architecture, and the Council has decided to exempt the holder of the Rome Scholarship and the Henry Jarvis student, provided their work is approved by the Board.

An examination (fee six guineas) is held by the Institute once a year, and alternative problems of design are published every six months, and at least four of these problems must be taken up by the student, and one of them must be a constructional problem. Further, the candidate must submit a thesis dealing with one of the undermentioned subjects: historical architecture, science as applied to buildings, design, including decoration. Four months before the date of the examination the subject selected for the thesis must be notified to the Board by the candidate, who must send in his thesis four weeks before the date of the examination. At option, the candidate may take the two parts of this examination separately, at an interval of not more than a year.

No more than a bare summary of the examinations is given above, the object being merely to indicate in broad outline their scope. Detailed particulars must be sought from the pamphlet from which they are condensed.

Societies and Institutions

South Wales Institute of Architects.

About eighty members and guests attended the opening meeting of the winter session of the Central (Cardiff) Branch of the South Wales Institute of Architects, when the prizes for design and measured drawings were presented to the successful competitors by the chairman, Col. Cecil Wilson, F.R.I.B.A. Capt. Percy Thomas, O.B.E., A.R.I.B.A., the assessor, criticized the drawings, and Mr. W. S. Purchon, M.A., A.R.I.B.A., head of the School of Architecture, gave an account of the past year's work of the School of Architecture. Mr. H. C. Portsmouth, F.S.Arc., of Swansea, President of the South Wales Institute of Architects, was present, and proposed a vote of thanks to the chairman.

British Society of Engineers.

Examinations for admittance of candidates to qualified membership, associate fellowship, and fellowship grades of the British Society of Engineers (147 West Street, Sheffield) will be held during this month in civil engineering, surveying and levelling, architectural design and draughtsmanship, estimating and contracting, quantity surveying and specification writing, sanitary engineering, plumbing, building, ferro-concrete and concrete and structural engineering, etc. Full particulars will be sent on request. To save candidates expense those situated away from Sheffield may submit as their examiner the name and address of a local schoolmaster, technical tutor, or other professional gentleman, whom the Society may trust to conduct the examination on its behalf, otherwise candidates will be required to attend for examination at Sheffield. The British Society of Engineers was formed in May, 1919, and approximately sixty papers are read annually upon all branches of engineering and constr tional work. The Society is composed ordinary members, qualified memb associate fellows, and fellows, and honorary fellowship grade is composed employers.

Birmingham Architectural Associatio

Mr. F. G. Minter, the London contr tor, in reading a paper before the B mingham Architectural Association "A Contractor's Views on Contracts a Architects," suggested that six mon with a firm of contractors would giv good practical finish to a young arc tect's training. This would enable h to see things from both points of vi The slump in the building trades, he sa must be due either to the want of c fidence in the existing order of things, else to the belief of the general public t profiteering was going on. The lat Mr. Minter denied, and showed wh measures he had taken to break up t idea. Mr. C. Silk proposed a vote thanks to the lecturer, which was second by Mr. H. L. Hands, and passed una mously. Mr. H. T. Buckland, F.R.I.B. the president, presided.

Leeds and West Yorkshire Architectu Society.

At the annual smoking concert of t Leeds and West Yorkshire Architectu Association, held at Leeds under the cha manship of the President, Mr. John Procter, M.C., A.R.I.B.A., the follow prizes were distributed.

Measured Drawings.—Society's Silver Medal and guineas, Mr. G. Lionel Broadbent, for measured drawi of Guiseley Rectory, near Leeds; consolation prize (guineas), Mr. R. Geoffrey Easdale, for measured draw of Ledstone Hall, near Castleford.

Design Competition for the best result in a serie Three Subjects.—First prize (five guineas), Mr. F. W. Allison; second prize (two guineas), Mr. H. G. Av The first prize was presented by Mr. Wm. Nicholson Messrs. Wm. Nicholson and Son (Leeds), Ltd.

Constructional Design.—First prize (three guine Mr. F. H. Wrigley.

Sketching Prize.—(Two guineas), Mr. R. G. Easdal

Halden Prize presented by Messrs. J. Halden & Ltd.—(Case of drawing instruments), Mr. S. H. Ru worth.

Essay Prize.—(Three guineas), Mr. H. Connolly.

Architectural History Prize.—(Two guineas), Mr. R Easdale.

During the evening Mr. Procter d livered his presidential address, a rep of which, however, owing to the gr pressure on our space we are compell to hold over until a subsequent issue.

A vote of thanks to the president w moved by Mr. W. F. Dawson, A.R.I.B. seconded by Mr. G. H. Foggitt, A.R.I.B. and supported by Mr. T. Butler Wils F.R.I.B.A. A concert, arranged by M Douglas Bowman, concluded the evenin entertainment.

Civic Education Leagu

The Civic Education League is ganizing a visit to Paris. Mr. Alexan Farquharson, M.A., is in charge of t educational side of the tour, and will ta the region as a basis of study. Visits institutions, such as Parliamentary, lo government, educational, will be ma Industrial centres will be visited—t galleries and churches will be includ Lectures will play an important part the programme. The League has secu the use of a small residential colle situated in the Latin Quarter. T general arrangements of the tour are the hands of Miss Margaret Tatton, Ci Education League, Loplay House, Belgrave Road, S.W. 1, from whom particulars may be obtained.

Waygood-Otis Club

e eighteenth annual dinner of the ood-Otis Club (which consists of yees of Waygood-Otis, Ltd., lift rs) has been held at the London n, Fenchurch Street. Some 130 ers, including several directors of mpany, were present.

C. H. J. Day, in taking the chair, sed the regret felt by all that Mr. Walker, the chairman of the com- and president of the club, had been e, owing to indisposition, to be with he had, however, sent his warmest ngs, and Mr. D. W. R. Green had l from Cape Town to wish them all t enjoyable evening.

various toasts which followed all d the friendly feeling existing ghout the company from all ranks employees to the directors, and the of confidence and optimism ex- d was doubly welcome in these of trade depression.

Waygood-Otis Quartet made its ppearance, and sang four songs with success, and the enthusiasm with they were received showed the appreciation and pride in possess- ch a talented musical combination.

C. H. J. Day was, as usual, in lid voice, and songs were also given . J. Pegg in an excellent manner.

proceedings terminated with the g of the national anthem and "Auld Syne," and so closed one of the njoyable evenings ever held by the already well-known for the excel- of its entertainments. The hon. aries, Mr. T. Howlett and Mr. idge, deserve the heartiest thanks ongratulations for their work in ing such a successful function.

School of Landscape Architecture

Thomas H. Mawson, who for many has been making frequent visits United States of America in the f a special lecturer on landscape ecture at the Universities of Har- Cornell, Columbia, Wisconsin, and an, has decided to open a school of ape architecture at Caton Hall, ancaster. The school, situated in ict where every type of architecture astoral landscape can be seen at est in all seasons of the year, will e a curriculum equal in its scope alue to those of the American sities. In addition, pupils will tunate in having at their disposal e experience of Mr. Mawson in ape design and horticultural work. awson, whose name is connected any important works on landscape cture and civic art, is Landscape ect to the Greek Government, Lec- n Landscape Design at the School ic Design, Liverpool University, resident of the Town Planning te, Fellow of the Linnean Society, r of the Art Workers' Guild, and a man of the Gardeners' Company. ll be assisted at the school by . Prentice Mawson, Fellow of the of Architects, Member of the Planning Institute, and a late t of the Ecole des Beaux - Arts,

American Architects and the Cenotaph

Invited by a representative of the JOURNAL to express their views on English work, Messrs. Bertram Goodhue and Donn Barber, the two distinguished American architects who are now in this country, made the following observations :—

Mr. Goodhue : When I speak of English classic architecture I should like to say that I think Sir Edwin Lutyens's cenotaph is one of the most beautiful and original monuments that have come out of the war. I was surprised to find it so small, but it is not out of scale considering the spot where it has been put.

Mr. Donn Barber said : It gave me exceeding pleasure to meet Sir Edwin Lutyens, as his work is imaginative and fresh and full of inspiration and invention. His cenotaph is a wonderful monument, restrained, characteristic, sufficient, and dignified, and in every way a satisfying solution of the problem.

He continued : I see no reason why, in London, buildings should not reach a limit of 150 ft., or say twelve stories. This after all is the limit that in America has been found to be the most economical and efficient.

Reports of Messrs. Goodhue and Donn Barber's addresses at the R.I.B.A. are published in another part of this issue.

Obituary

Mr. William J. Moore.

It is with deep regret that we announce the death of Mr. William J. Moore, of Belfast, architect, at the age of forty-eight. Mr. Moore had a large professional practice, and specialized in ecclesiastical architecture. Among his better-known work are two Roman Catholic chapels at Cushendell, one at Portstewart, as well as several more in various parts of Ireland, and the Whitla Street Fire Station, Belfast.

Mr. H. W. Richards.

We regret to announce the death of Mr. H. W. Richards, principal of the London County Council School of Building, Ferndale Road, Clapham. Mr. Richards had been unwell for some time. The funeral took place on Friday last at Barnes New Cemetery.

M. Gaston Redon.

Many of our readers will be grieved to hear of the sudden death, at the age of 68, of Monsieur Gaston Redon, architecte en chef du gouvernement. English architects who attended the Franco-British Conference at Paris just before the war will remember his courtesy in conducting them round the Palace of Fontainebleau.

Monsieur Redon was a "Membre de l'Institut." Born at Bordeaux in 1853, he became a pupil of the Atelier André, won the Premier Grand Prix de Rome in 1883 (subject, "Une nécropole"). At one time he was architecte des Palais du Louvre et des Tuileries, and later architecte du Palais de Fontainebleau. Among his works are the Municipal Casino at Royan, the "Salle des Rubens" at the Louvre, and the Musée des Arts décoratifs at the Tuileries.

His "Atelier" at Paris has become one of the most popular among students of the Ecole des Beaux-Arts.

Publications Received

"Votarial Verse and Arabesques." By Philip Robson. Price 5s. net. Palmer, Howe & Co., 73-75 Princess Street, Manchester.

"Builders' Accounts and Office Supervision." By Hardy Keen. Price 5s. net. Crosby, Lockwood and Son, 7 Stationers' Hall, Ludgate Hill, E.C.4.

We have received from the National Housing Association, of 105 East 22nd Street, New York City, the following pamphlets : (1) City and Suburban Homes Company : Twenty-fifth annual report of the President; (2) Here's How to Cut $\frac{1}{3}$ from Brickwork Cost; (3) Commonwealth of Massachusetts : Annual report of the Division of Housing and Town Planning for the Year ended November 30, 1920; (4) Housing Progress in Cincinnati : Second report of the Cincinnati Better Housing League, July, 1921; (5) How to Plan, Finance and Build Your Home.

"Simplified Methods of Calculating Reinforced Concrete Members." By W. Noble Twelvetrees, M.I.Mech.E., M.Soc.C.E. (France), Past President of the Society of Engineers (Incorporated). Second Edition. Revised and Enlarged with numerous tables and labour-saving diagrams. Price 5s. net. Sir Isaac Pitman and Sons, Ltd., Parker Street, Kingsway, W.C.2.

"A Concise Guide to the Town and University of Cambridge." Originally written by John Willis Clark, M.A., Hon. D.Litt. (Oxf.), F.S.A., late Registrary of the University and Fellow of Trinity College. Seventh edition, entirely revised. Price 1s. 9d. net. Bowes and Bowes, Cambridge.

"The Art of Drawing in Lead Pencil." By Jasper Salwey, A.R.I.B.A. Price 10s. 6d. net. B. T. Batsford, 94 High Holborn, W.C.

"Drawing for Art Students and Illustrators." By Allen W. Seaby, University College, Reading. Price 12s. net. B. T. Batsford, Ltd., 94 High Holborn, W.C.

"Daniel H. Burnham, Architect, Planner of Cities." By Charles Moore. Vol. I. Price $20.00 net. Houghton Mifflin Company, 4 Park Street, Boston, Mass.

Theatre Furnishers' Catalogues for South Africa

H.M. Trade Commissioner at Cape Town has reported to the Department of Overseas Trade his desire to receive illustrated catalogues and up-to-date price lists from United Kingdom manufacturers of tip-up seating and other classes of cinema and theatre furniture. He states that there is a considerable demand for such goods in South Africa, and he desires to receive these catalogues in order that he may be in a position to deal with any enquiries that may be addressed to him on the matter. United Kingdom manufacturers who are interested should forward catalogues to the Department of Overseas Trade (Room 41), 35 Old Queen Street, London, S.W.1, for transmission to H.M. Trade Commissioner (quoting reference D.O.T. 7318/E.D.).

Latest List of New Inventions

Latest Patent Applications.

29285.—Lee, R. — Roofing, etc., tile. November 3.

29026.—Roberts, J. C.—Rubber roofing, partitions, etc. November 1.

29305.—Thomas, C.—Concrete building, etc., blocks. November 3.

29108.—Tozer, F. M.—Horizontal slating, etc. November 2.

29600.—Aktiebolaget, Abjorn Anderson. —Roofing-tile press. November 7.

29809.—Clement, J.—Window frames or casements. November 9.

29830.—Lycett, W. H.—Curb and fender corner-pieces. November 9.

29577.—McDonald, D.—Device to prevent down-draught in chimneys. November 7.

29901.—Osborne, W. A.—Compositions for building walls, etc. November 9.

30148.—Wehlmann, A.—Fireplaces and stoves. November 11.

Specifications Published.

128027.—Bessonneau, J. P. B., and Besnard, C. H.—Roofs.

170611.—Thomas, G. C.—Machinery for the manufacture of artificial stone blocks and the like.

145443.—Guillot, P. J.—Manufacture of imitation marble.

156636.—Soc. Veuve E. Baron et Cie.—Impermeable and rigid pasteboard destined for roofing purposes.

150312.—Fatio, M.—Concrete blocks and like elements of construction.

170541.—Hayes, W. P., and Hayes, P. G. —Concrete building.

Abstract Published.

169282.—Walls; building - blocks. — Roberts, E. W., Gammons Farm, Nr. Watford, Hertfordshire, and Leese, L. F. W., 30 Willow Road, Hampstead, London.—A story-high building unit has parallel faces connected by inclined webs, the triangular cells so formed increasing in area from one end to the other. Adjacent cells taper in opposite directions. The units are moulded from a compressed mixture of cement and asbestos or like fibre, and are filled when in situ with cement and aggregate. Specication 169,212 is referred to.

169583.—Moulding in situ.—Mr. J. King, 5 Marlow Road, Maidenhead.—Blocks, slabs, or rolls are formed in situ by shuttering and uprights supported on metal bearers positioned in recesses in the course already cast. The bearers have upturned ends, or are adapted to receive nuts and washers against which the uprights are forced to bear by a top cross bolt and a middle strut which also forms the recesses in the slabs or courses. The top of the bearer is covered by sand to form a slot in the block or course, so that the bearer may be withdrawn after moulding and this slot is subsequently filled. For hollow walls inner shuttering is used supported by the bearers and metal ties.

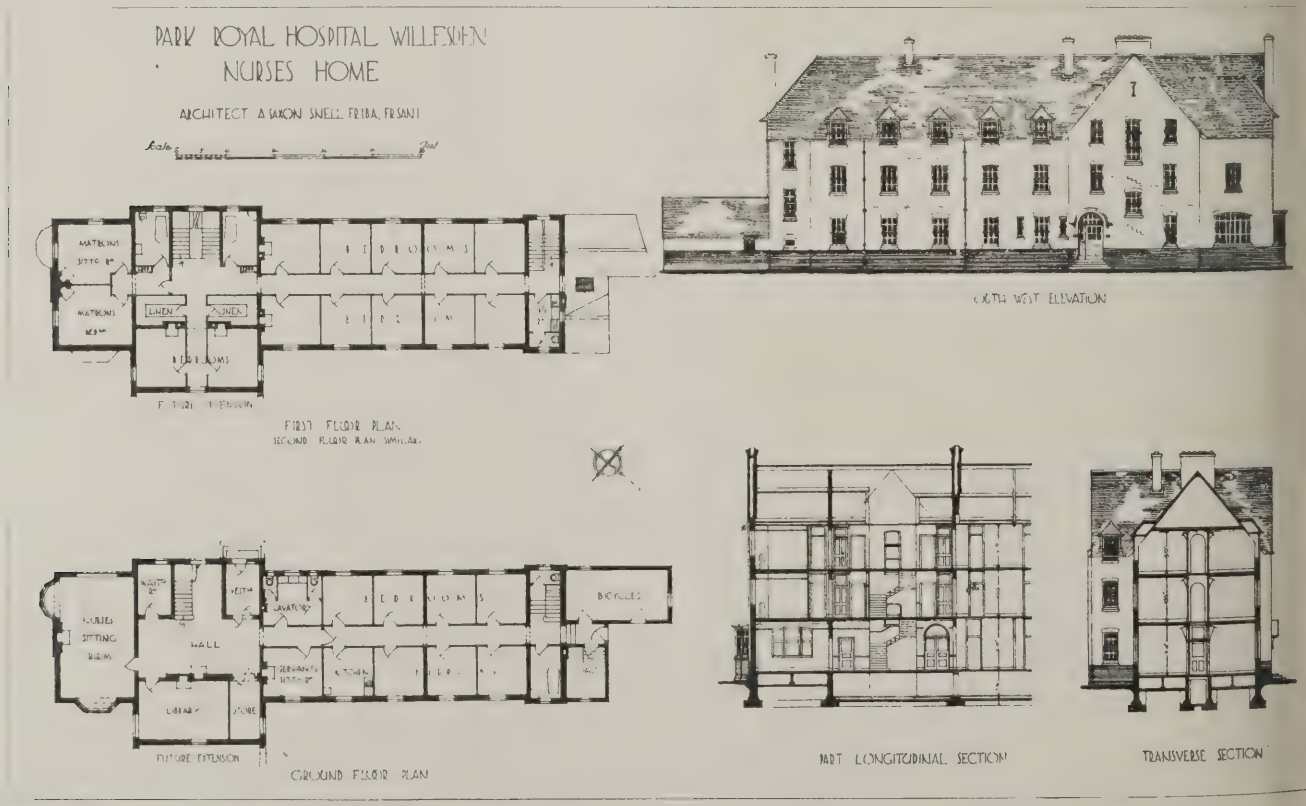
The above particulars are specially prepared by Messrs. Rayner & Co., Registered Patent Agents, of 5 Chancery Lane, London, from whom readers of this Journal may obtain all information free relating to patents, trade-marks, and designs. Messrs. Rayner & Co. will obtain printed copies of the published specifications and forward on post free for the official price of 1/- each.

Portland Cement an Jamaica

The Government of Jamaica is un stood to be taking interest in a pro for the establishment of a Port cement industry in the Colony. In event of such a scheme materializin Jamaica with Government approval, industry may possibly ultimately ab most of the trade in the West In The Department of Overseas Trade received a report by a United King firm of consulting metallurgists on possibility of establishing such an in try in Jamaica. Copies of this re may be obtained by persons or firm the United Kingdom who may be i ested on application to the Departm at 35 Old Queen Street, London, S. (quoting reference No. 6827/E The Department will also be willin furnish any further information to f or individuals interested.

A Nurses' Home

This building has been erected f the designs of Mr. Alfred Saxon S F.R.I.B.A., in connection with the Royal Hospital, to which it is conne by a covered way. It contains thirty bedrooms for nurses, each with an of 100 sq. ft., matron's bed- and sit rooms, general sitting-room and libr small kitchen, and servants' sitting-r bicycle store, etc. The external el tions are constructed in yellow st relieved with red arches, and base. roofs are of hand-made red tiles. T are no fireplaces in the bedrooms, but corridors are heated by low-pressure water, and electric lighting has been stalled throughout. The buildings erected by Messrs. Wm. Moss and S of Loughborough, at a cost of £5,900



PARK ROYAL HOSPITAL NURSES' HOME. A. SAXON SNELL, F.R.I.B.A., ARCHITECT.

The Week's News

Liverpool Cathedral.

first portion of the main building ·rpool Cathedral will be ready for :ation very shortly.

New Bridge for Glasgow.

gow Corporation have decided to new bridge over the river Clyde. st is estimated at £500,000.

Croydon Town Planning.

n-planning plans are being con- jointly by Croydon and surround- :horities.

·al Sanitary Institute Congress.

next congress of the Royal Sani- nstitute will be held at Bourne- from July 24 to July 29, 1922.

·tley Town-planning Scheme.

Otley town-planning scheme has .pproved. Under the scheme no han sixteen houses may be built acre, or one for every 300 sq. yds.

The Late Mr. G. G. Sames.

death is announced of Mr. G. G. senior partner in the firm of Sames and Green, of Blackburn ırwen, architects, at the age of 55.

Eston Urban Housing.

·rovide work for the unemployed ·ton Urban District Council are the Housing Commissioner to n the erection of fifty houses.

Lincoln Cathedral.

Charles Nicholson and Sir Francis e reporting on the condition of the vest tower of Lincoln Cathedral. repairs are contemplated.

N.E.R. War Memorial.

war memorial of the North Eastern y Company is to be erected at Sir Edwin L. Lutyens, R.A., 3.A., is the architect.

·orough Promenade Extension.

heme to extend the North Bay ıade at a cost of £5,000 is being red by the Scarborough Town

Rye Cottage Hospital.

:ess Louise (Duchess of Argyll) ned a new war memorial cottage l for Rye, Winchelsea, and dis- Sir Reginald Blomfield, R.A., is hitect.

ıam Cathedral Restoration Work.

Dean and Chapter of Durham are ıking a scheme of restoration to ıtern or central tower of the ral. The work on it was stopped the war.

mmanford Cottage Hospital.

ttage hospital to accommodate 30 to be built at Ammanford as a emorial. Mr. Glendinning Mox- .R.I.B.A., of Swansea, has been ed architect.

ial Buildings for Barnard Castle.

R. Wylie, A.R.I.B.A., of New- has been appointed architect for rochial buildings to be erected in ion with the Parish Church, l Castle, at an estimated cost of £3,500 and £4,000.

Islington New Municipal Buildings.

The London County Council has agreed to sanction a loan of £74,000 to the Islington Borough Council for the erection of new municipal offices on the Tyndale Place site acquired last year at a cost of £30,000.

Changes at the National Gallery.

The galleries containing the re-arranged early pictures of the Florentine, Sienese, Umbrian, and Lombard Schools have been reopened to the public. The re-arrangement of the pictures of the Venetian School will not be completed before next spring.

The New Architecture.

Lecturing at Bournemouth on "The Artist," Mr. E. Hesketh Hubbard, A.R.W.A., landscape painter and etcher, founder of The Print Society, said that he believed engineering at its best is "architecture in metal." He regarded the great engineer as an artist.

Bangor War Memorial.

An appeal is being made for funds for the war memorial proposed to be erected at Bangor from the design of Mr. Frank Bellis. It is proposed to erect the memorial on vacant land adjoining the Town Hall, and to lay out the remainder of the site as public ornamental grounds.

St. Paul's Cathedral.

The last of the girders for the construction of temporary supports in the south transept of St. Paul's Cathedral has just been taken into the building. The Cathedral authorities have appointed a new commission, consisting mainly of engineers, to report on the condition of the fabric.

Mansfield Town Planning.

Mansfield Town Planning Committee recommend that the Council confer with the other authorities represented at the recent conference at Mansfield in appointing a joint committee for the purpose of co-ordinating town-planning schemes for the different areas, and of preparing a joint plan.

Noise and Fatigue.

Professor Spooner, C.E., member of the International Committee on Industrial Fatigue, in delivering at Blackburn a Chadwick Public Lecture on "Problems of Noise and Fatigue," spoke of the great value of rubber in solving many noise problems, particularly for flooring, the treads of stairs, and for roads (the construction of which has not kept pace with the development of vehicular traffic) in cases that would justify its use. He appealed to his audience to observe America's annual "Fatigue Elimination Day."

Granite Trade and Grave Headstones.

Aberdeen has sent a deputation to the Commissioner for War Graves to ask that some of the contracts for the British grave headstones in France and Flanders should be placed with the granite merchants and cutters of the city. In Aberdeen at the present time there are 500 unemployed granite workers.

Tilbury Improvements.

The Port of London Authority and the Midland Railway Company are promoting a Bill to authorize the Port Authority to construct a platform with river wall and a floating landing-stage at Tilbury, and to carry out other improvements, while the City Corporation are to seek, among other provisions, powers to carry out street widenings in the borough of Stepney.

Victoria and Albert Museum.

A case containing over fifty specimens of Chien ware, so called from the Province of Fu-chien, where it originated, has been placed on exhibition in the Loan Court of the Victoria and Albert Museum. Most of the specimens may be ascribed to the Sung dynasty (960–1279), though a single Japanese example, in the shape of a seventeenth-century German tankard, is there to sound a warning note against the danger of indiscriminate early dating.

St. Paul's Bridge Again.

Definite proposals to construct a new bridge across the Thames, between Blackfriars and Southwark, are to be considered by the Bridge House Estates Committee of the City Corporation. Plans and specifications have been perfected, most of the necessary property has been acquired, and only the raising of the cash (about £1,000,000) remains to be done.

North Wales Heroes Memorial.

The design of Mr. D. Wynne Thomas, M.S.A., for the war memorial buildings to be erected at a cost of £15,000 in the grounds of the University College, Bangor, has been accepted by the authorities. This design, as announced in our issue for September 21, secured first place in the recent competition promoted in connection with the Royal Eisteddfod of Wales, and the report of the assessor, Mr. G. Gilbert Scott, A.R.A., was published in our issue for September 28. Mr. Wynne Thomas is a native of South Wales, and since 1910 has been connected with the firm of Messrs. Bradshaw Gass and Hope, architects.

Architects and the Stage

Apropos of Mr. Nigel Playfair's plea for the more frequent employment of the architect's services in connection with the stage, it is interesting to note that architects had much to do with the success of Lytton's comedy "Not so Bad as We Seem," which was given last week at Devonshire House. In addition to the fact that an architect (Professor A. E. Richardson) actually took part in the play, architects and architecture were intimately concerned with the details of the setting and equipment. Mr. Edward Warren lent an early eighteenth-century brush, tray, cup and saucer, and the Architectural Association kindly loaned the shovel which was used by Mr. Pett Ridge. The selection of the period furniture (by Roberson) was also made with architectural assistance.

Trade and Craft

Designing a Lift.

Messrs. Marryat and Scott, Ltd., of Hatton Garden, London, E.C., lift engineers, have prepared a catalogue on lifts, the object of which is not only to describe in detail their own make, but also to enable anyone to design his own lift and select the equipment most suited to his needs. The catalogue includes valuable information such as tables containing prices, codes, weights, technical explanations of gear and apparatus, and description of the various types of lift cars, including coloured plates of standard patterns. Its exhaustiveness is the result of great labour and twenty-six years' experience of electric lift construction. The figures in the tables will enable an architect to estimate the cost of any passenger or goods lifts he may desire, and to ascertain the value of the component parts, which is useful in estimating the cost of alteration and reconstruction work. In connection with buildings abroad it is often desirable that only the principle machinery be provided from home, and in that case again it is a useful advantage to be able to price each individual part. The book contains 60 illustrations, 40 tables, 1,137 prices, and 1,368 code references. The coding, by which long, complicated instructions may be transmitted in a few words, is very ingenious.

Change of Address.

Messrs. Simplex Conduits, Ltd., manufacturing electrical engineers and wholesale electrical suppliers, have moved their Newcastle-on-Tyne branch to 72 St. Mary's Place, where business is being conducted under the same management of Mr. A. G. Robson. The telephone number, Central 2615, and the telegraphic address, "Simplex, Newcastle-on-Tyne," remain as before.

Iron and Steelwork.

Messrs. Frederick Braby & Company, Ltd., of the "Eclipse" Iron and Steel Works, Glasgow, have sent us copies of four of their latest booklets describing their various specialities. These are Braby's handbook for architects and engineers, and the firm's booklets on standard steel sashes, high-grade steel casements, and roof trusses from stock. In the handbook there is a new collection of views of various departments, etc., which help to demonstrate in an interesting manner the complete and comprehensive equipment employed in the production of all and any work turned out by the firm. To-day the actual area of the works under cover and at work is nearly 35 acres. Employment is given to upwards of 1,500 men, and a staff of over 100 is required to run the business. In the 15 large separate departments is being turned out an amazing quantity and variety of manufactures, selections of which are illustrated and described in the book, together with information and data of general use. The booklet on the Braby Sash contains a range of types and sizes which give a freedom of choice, and should enable buildings to be constructed to the best advantage, coupled with rapid and economical construction.

In the booklet on steel casements, Messrs. Braby illustrate a few of their different designs and sections for various types and sizes of opening parts, but the firm are prepared to manufacture casements of every description to suit architects' requirements, either in steel or gunmetal. These can be supplied and fitted by the company complete into business premises, private dwellings, and all classes of buildings. In "Roof Trusses from Stock" the company show a few of the types and arrangements of roof which, without delay, can be constructed on this system. The tables of spans, etc., given, which range from 13 ft. span to 53 ft. $11\frac{15}{16}$ in. span in 34 stages, should be found more than sufficient to enable anyone to find a stock roof to suit any building. It of course takes more than a roof truss to make a roof, but being actual manufacturers of all the necessary fitments such as purlins, astragals, windows, rooflights, corrugated iron sheeting, ventilators, etc., the firm have always an ample stock suitable for any type or arrangement of light, etc. Messrs. Braby & Company are contractors to H.M. Government and foreign railways, and on War Office, Admiralty, India Office, and Colonial Office lists.

Surveying Instruments.

Messrs. T. Cooke and Sons, Ltd., of 3 Broadway, Westminster, S.W.1—a firm with over eighty years' experience in scientific instrument making—have sent us a copy of their latest catalogue of high-grade surveying and other scientific instruments. The entire construction of the instruments, even the largest and most complicated, is carried out in the firm's own factory. Only the very best and most suitable materials are used, and each instrument, after assembly, has to run the gauntlet of rigid tests and inspection by expert craftsmen. The firm also draw their own tubes, run an extensive woodworking factory for the manufacture of tripods, instrument boxes, etc., and have their own leather-working shops for outer-cases, slings, and straps. For years past it has been the policy of the company to enlist the assistance of acknowledged experts so as to produce the most suitable and up-to-date apparatus for any particular purpose. Generally speaking, the total accumulated error of a theodolite when it leaves the works is within half of the minimum reading of the vernier or micrometer. Besides scientific instruments the firm also supply all kinds of drawing materials, and scientific and text books on surveying, engineering, meteorology, etc. During the fifteen years previous to the war the firm manufactured nearly 13,000 theodolites and levels alone. From 1914 to 1919 the Company laid aside the whole of their ordinary business and placed their services unreservedly at the disposal of Government departments. At the Camborne Exhibition, held last year, the Royal Polytechnic Society awarded the Special Silver (James Watt) Medal to the Company for their "Rand Model" Mining theodolite. The Company's instruments are used by the following offices and institutions, some of which the firm have supplied regularly for over seventy-five years: Admiralty, Air Ministry, Board of Works, Crown Agents for the Colonies, India Office, Ordnance Survey, Post O War Office; The Canadian, Egyp Indian, and other Official Survey partments throughout the world; of the British, Colonial, and Indian ways; and the principal universities training institutions for civil and m engineers, architects, and others, at and abroad.

Two Lighting Leaflets.

The General Electric Co., Ltd Magnet House, Kingsway, London, W have sent us copies of two illust leaflets—one describing the Osram " talite" electric candle, and the giving details of the Osram window play, which the firm offer on loan, fr charge, to resellers of Osram lamps. "Huntalite" electric candle has specially designed as a most fai imitation of a white wax candle, utmost care being taken to reproduc exact proportions and dimensions to the smallest detail. Especially provided with suitable silk shades electric candles maintain the illusio well that there need be no hesitatio the score of good taste in installing in the most correctly equipped "per room. An additional advantage sessed by the lamps is that being in one piece they remain rigid and fectly upright in the sconces withou use of clips or other devices. The el candles consume 20 watts, and are in a range of standard voltages fro to 250 volts. The window dis which the Company are offering on are a feature of the Company's aut sales campaign. Some of these dis are exhibited in the windows at Ma House, Kingsway. That designe advertise Osram lamps consists of a cloth and various pieces of beauti painted and shaped scenery, depicti winter scene in an Old English vil and is intended to carry home the a of the comfort and attractiveness of lighting by Osram lamps. By mea hidden lamps, the windows in the n houses may be illuminated, thus ad considerably to the realism and at tiveness of the display both by day by night. The whole apparatus is simply designed, and can be erected very short space of time without special knowledge. We understand a limited number of these displays available for loan, application for w should be made on the special form tached to leaflet O.S. 2619, which gives full details and instructions erecting. Copies of both leaflets ma obtained on application to Magnet H Kingsway, or to any of the Compa provincial branches.

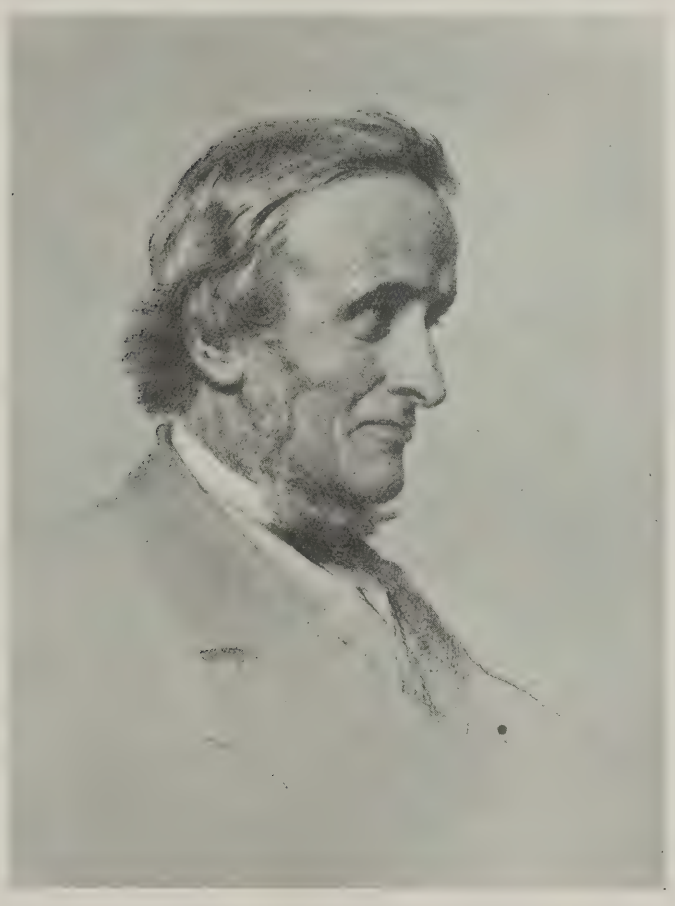
Building Revival in Alexandria.

Some activity is noticeable at present time in the building trad Alexandria, particularly in the erec of private villas in the suburbs, s His Majesty's Commercial Agent Egypt. United Kingdom firms desi of offering supplies of building mate can obtain the names of contractors importers of such materials in Egyp application to the Department of C seas Trade, 35 Old Queen Street, W minster, S.W.1. (Ref. 6450/FE/PN.

Wednesday, December 14, 1921. Vol. LIV. No. 1406

THE ARCHITECTS' JOURNAL & Architectural Engineer

With which is incorporated "The Builders' Journal"



EWAN CHRISTIAN (1814-1895).

Ewan Christian was born in London, and began his education, at the age of eight, in the junior branch of Christ's Hospital, Hertford. In 1829 he was articled to Mr. Matthew Habershon, a London architect. In 1841 he went to Rome and Naples, and in the following year commenced practice on his own account in London. Before he reached the age of forty he became architect to the Ecclesiastical Commissioners, a position he held for many years. During 1884-6 he was vice-president and then president of the R.I.B.A. He received the Royal Gold Medal in 1887—the year in which he was appointed consulting architect to the Charity Commissioners. His chief works were church restorations, of which Southwell Minster was the most important, but he also designed a large number of mansions and houses, and was responsible for considerable additions to the National Portrait Gallery.

27-29 Tothill Street, Westminster, S.W.1.

133.—Birmingham Hall of Memory Competition : First Premiated Design

S. N. Cooke and W. N. Twist, FF.R.I.B.A., Architects



THE
ARCHITECTS' JOURNAL
27-29 Tothill Street, Westminster, S.W.1.

esday, December 14, 1921 Volume LIV. No. 1406

Taller Buildings for London ?

HIS is certainly an open question, and we intend to state both sides of it quite impartially. Those architects and surveyors who are professionally interested in ascertaining the building needs of ss men assert very positively that among these there eneral demand for taller buildings for London. This which for the past two years has been in process of ition, has been greatly stimulated by an interchange its between organizations of traders of the United and of Great Britain respectively, and has been nt to a head by the exhibition of American archi- e recently held at the R.I.B.A. galleries.

traders, envious of their American cousins' enor- y greater liberty of building skyward, but afraid of s attack from protestants against the uglification of n that has been commonly assumed as an inevitable of filling its streets with tall buildings, have now courage from the abundant evidence the exhibition ed that tall buildings are not necessarily, nor even lly, skyscrapers, and can be made architecturally tive.

ders must be credited with being genuinely anxious the æsthetic issue, because (if for no better reason) are well aware of the commercial value of "good rance"; and on this score American example has red them. It leaves no "possible doubt whatever" all buildings are susceptible of architectural treat-

What is even more important to their case is that re able to fortify it with the considered opinion of a ity of the Building Act Committee of the Royal ute, whose spokesman has put before the London y Council, in whose hands the decision as to the of buildings in London is absolute, the proposal that nit shall be raised from 80 ft. to 150 ft.

s opinion, however, as Mr. Waterhouse has declared, by no means be taken to be that of the R.I.B.A., minority of the Building Act Committee are not in nent with it. This proposal is a modification of that by Mr. Delissa Joseph in the Press nearly two years vhen the height suggested was for 200 ft., which very modest in comparison with the forty stories sted by Sir Martin Conway (an intrepid mountaineer, of altitude), who must have turned green with envy he heard that the Woolworth Building had been ed to climb to the dizzy height of fifty-seven stories, who will probably have noted with contempt the ion by New York of a stunted twenty-story standard. the case which the Incorporated Association of Retail butors are presenting to the Royal Commission on Brigades and Fire Prevention, a strong point is that resent by-laws were made when fire-protection con- ion was merely incipient. It has now been brought igh degree of efficiency; and the efforts of the builder been supplemented by devices, such as automatic klers, hand-grenades, and several other kinds of guishers, for promptly suppressing an outbreak.

for the building itself, it is now claimed that there not be a particle of inflammable material either in its ruction or in its fittings, woodwork being wholly seded by metal. In the matter of planning, also, there have been considerable modifications of practice; arrangements that assisted to spread fire, or to fan it so that the building soon became a roaring fiery furnace, have been abandoned for details of layout that are, at all events, carefully contrived to minimize that effect. Hardly more than a quarter of a century ago the protection of buildings against fire was a vague aspiration. To-day it is regular and systematic, and this fact seems likely to go far towards determining the issue with respect to relaxing the by-law as to the heights of buildings in London.

Whether or not the old restriction is maintained will depend chiefly on the recommendations of the aforesaid Royal Commission on Fire Brigades and Fire Prevention. Not the demand of traders for extension upwards, nor the desire of the landowner to make his site yield a higher return, nor the assurance that the tall building can be made sightly, will avail against the finding of the Commission, if it should chance so to find, that tall buildings would endanger safety or health. If the firemen can use their hose effectually in extinguishing fire at such a height, and if the inmates of the building were guaranteed ample means of escape, there would still remain for consideration the danger to firemen operating at such a height, and the increased danger to surrounding buildings, either from so tall a structure toppling over, or from its increased aptitude to spread sparks and embers round about it. And the effect of enemy bombs is not negligible; nor yet the possible obstruction to aviation.

Besides these points there are several others that will have to be met. It has been announced with an air of finality that all the principal stores in the great shopping centres are strongly in favour of increased height. They would, we think, be outvoted by the large numbers of suburban traders who would object to any alteration that would further increase the overwhelming advantage enjoyed by the stores against which they are struggling to compete. Useless to contend that in the suburbs also vertical extension would be permissible: the suburbs could do without it, more especially when the stores shall have adopted it.

Then there are the questions of health and amenity. Tall buildings shut out too much sunshine, both internally and externally. Inside, artificial lighting could to some extent atone for the exclusion of daylight. Outside, the street that was not widened to an extent that would neutralize the economy of building high, would be plagued with darkness, and darkness that would be a perpetual menace to the health of all things living except noxious microbes. In some instances in American cities tall buildings have made the streets pestilent. This must not occur here; and, perhaps, if buildings go no higher than 120 ft. or 150 ft. before open spaces, it need not. That is a question for professed hygienists to determine.

There remains for consideration the perplexing question of ancient lights. Tall buildings would necessitate a radical change in the laws as to light and air, otherwise litigation would be as deep a shadow as any they could cast by daylight or moonlight.

Whether permission to build 40 ft. or 50 ft. higher is essential to London's commercial prosperity; and whether

safety, health, and amenity would suffer from the innovation, are questions that require very careful deliberation before they can be determined yea or nay. It is certainly not sufficient to point to the example of America. London is not New York, and all the pros and cons should be carefully deliberated before a decision is made. Hitherto, during the present campaign, but one side of the question has been urged.

It is for the R.I.B.A. to assert the claims for amenity—that especially; and no authority is, indeed, so competent as the R.I.B.A. to review the whole situation and to afford the London County Council the guidance that it will surely welcome from such a quarter, and lovers of amenity will feel reassured by Mr. Paul Waterhouse's statement, in "The Times" of December 8, that a suggestion, in a leading article in that newspaper, that the R.I.B.A. had expressed approval of the proposal was premature. "The representative body of British architects" has yet to come to a decision on the subject. In the meantime, the opinions of our readers would be helpful.

Towards Prosperity

Although it is never safe to prophesy unless you know, it is always permissible, and frequently necessary, to count on reasonable probabilities. This course is boldly taken by Mr. H. G. Williams in an article in the current issue of "The Industrial League and Council Journal," in which he predicts the stabilizing of prices at about 70 to 80 per cent. above the pre-war level, "so that the index number will probably drop another thirty or forty points, with corresponding effect in all those trades which have sliding-scale agreements." Architects will be still more interested in the further prognostication that, "whatever may be the views of organized employers or organized workmen in the other trades, corresponding readjustments in wage rates are inevitable," since this observation has considerable bearing on the wage agreements in the building trade. Wisdom and truth are apparent also in this neat passage, which supplies the key to the situation: "From the point of view of steady employment and consequent prosperity, the best thing that can happen is that the changes in prices and in wages shall take place with the greatest rapidity, as a full flow of trade will be impeded so long as the future of prices and of the cost of production is uncertain." *Experto crede;* and it will not be out of season to add a cautionary word about an inveterate tendency of building trades workers to demand wages increases as soon as the industry begins to look prosperous. By this time they ought to have realized the danger of reacting towards an incipient boom with demands that will invalidate it.

Builders' Merchants' Rings

There is, it appears, a "London House Builders' Association." It is not, its president has explained, a trade union, nor an organization to "ring up" prices, but is an organization formed "to promote the best interests of house-building by private enterprise." At a meeting held at Caxton Hall, Westminster, last Thursday, bitter complaints were made of the alleged tyranny of rings of builders' merchants, who, it was said, fix the prices of materials and terrorize anybody who dares to sell cheaper. These combinations to keep up prices are frequently denounced by builders' organizations, which surely are sufficiently powerful to employ drastic means of putting an end to so grave a scandal. Why they have not taken action is a mystery; but it would appear that their intervention will presently be unnecessary, for one of the speakers at the House Builders' meeting stated, we know not on what authority, that "Mr. Lloyd George had promised there should be such legislation as would destroy the combines governing these commodities." Such a consummation would please no section of the community half as well as those fair-dealing builders' merchants who have been made to suffer through and from the tyranny of the rings. As for the building contractors, they are dead tired of being blamed for the sins that the undiscrimina public have not sagacity enough to lay to the charg the builders' merchant, but put down to the builder self. Alternatively, and with equally gross injustice, say that "all these fellows are in league together." So builder, suffering both injury and insult, should be keen to strengthen Mr. Lloyd George's hands.

Dundee's Housing Model

Dundee has built a model house. Not necessarily imitation, but as a guarantee of the corporation's spir enterprise. It is a six-roomed house, and has cost proximately £7,000 to build. They are going to let it £100 a year to the gentleman who built it. At a mee of the corporation certain members attacked the w transaction. They said it was uneconomic. But then a placatory member said, "It was a bad time perhaps this question to be settled—in gloomy November. tax bills, income-tax bills, and house duty bills were com in, and the responsible ratepayer was considering him a much-abused person." But it appears that he sho also consider that this model house is so replete w ingenious labour-saving and other contrivances that o corporations will run trips to it. Magnanimously enou nobody on the Dundee council was Scottish enough make the economic suggestion that visitors should charged so much a head for inspecting it: children h price. A six-roomed house that cost £7,000 to build, has been let at a hundred a year, should be well wo seeing. It might teach us what particular labour-sav appliances to avoid.

Fees for Housing Schemes

While giving full credit to the R.I.B.A. for the zea always displays in protecting the pecuniary interests architects, there is an aspect of the question that sho not, and certainly does not, escape attention. The In tute is neither a trade union nor a body of traders. It far higher functions, and this consideration was forc yet delicately expressed by Mr. Maurice E. Webb at Institute's meeting to consider the question of fees housing. Some rather shrewish observations were m by several speakers, who were incensed (and not, it m be admitted, without some considerable show of justif tion) with the Ministry of Health over the question of ag ment as to fees; but these irate gentlemen evidently for the old saw that "circumstances alter cases," and the ma was shown in true perspective by the neat and timely li speech in which Mr. Maurice E. Webb reminded the meet that the Profession "ought to do the best it could for ho ing, and remember that fees were not the only thing a consideration that certainly seemed to have escaped or two of the speakers, who advocated "fighting it before the courts." Mr. Maurice Webb indicated the be way. "Fighting it out in the courts" would have ha deplorable effect on the dignity and prestige of the Institu Filibustering is not its forte.

Mr. Playfair on Stage Design

It was a very happy thought to invite so distinguish an actor and so astute a theatre-manager to address Architectural Association on the subject of stage desi It was cheering to learn on his high authority that, as have so often said in these pages, the stage is acquir fresh dignity and simplicity. Mr. Playfair himself helped prodigiously to stimulate this wholesome tender although, with his usual charming modesty, he gave to late Mr. Lovat Fraser all the credit of the splendid refo that sprang from his association with that incompara genius of stage settings. To Mr. Playfair, whether actor or as manager, the inspirer or the exponent of the stage is under heavy obligations, and his address the A.A. carried on the good work in, we will venture say, exactly the right field. It was an intensely interest subject, treated with the highest authority.

ıge Settings and "The Sleeping Princess"

An Architectural Criticism

By VERNON CROMPTON, F.R.I.B.A.

ſ is a sign of the times that a journal devoted to matters architectural should find place for a slight article upon such a subject as the stage setting of one of the Russian ballets. Even so recently as fifteen or ty years ago, when many of us were young students, a thing would have been inconceivable. In a country e business is indeed business, was it not clear that if rchitect exhibited such a thing as "flair" for anything de bricks and mortar it was sufficient to render him ect?

was held, quite piously and dogmatically, that the tect who ventured to design wall-papers and fire- was a crank who would have to put up the shutters r or later. As for the architecture of stage settings! his was doubtless a very comfortable state of affairs.

t things have changed, and architects are beginning alize that the present parlous design of architectural settings and backgrounds is due to no small extent eir own aloofness. The architect has been like the ıtee landlord: his rich inheritance and estate has gone in in his absence. He has shut his eyes to one of the amental articles of his religion as an architect, that artist and craftsman, no matter whether he works in or pastel or makes pots and pans, is all the better activities are arranged organically around a backbone rchitectural knowledge. In other words, that archi- re is the mother of the arts.

d now, what about the stage setting of "The Sleeping ess"? What criticism can an architect make with e in a matter as to which he is to a considerable t a layman and an outsider? Broadly speaking, the criticism is twofold, and as it is based upon fundamental principles common to his own art as well as to that of the stage, I venture to think that it can be made legitimately by an architect.

Criticism number one deals with the method of approach towards the matter in hand, and shortly is as follows:—

A subject, the nature of which is universal and permanent, has been given a setting the nature of which is transient and trivial. This, of course, sounds very "high-brow" and incomprehensible, but that is inevitable when a long argument is condensed into a short formula. In explanation, let us remember that the criticism now being attempted is one that is common to all the Arts.

Let us see how an architect should approach his work. At the outset, before he commences his smallest and roughest thumbnail studies, he must grasp the spirit of the whole matter. He must disentangle the essential from the unessential, and when he has made sure of the former he must rank them together in some scale of values. By such a method of elimination, most often made subconsciously, and, in those rare cases where his brain works properly, almost without apparent effort and immediately, the architect achieves an image of the real inwardness of the building he has to design. He grasps the nature of the thing in itself: he can then proceed. To drop to earth again. That is why an architect should not design a church like a music hall, or a municipal building like a private house. Although it is often done, it is a mistake, and that is the mistake which M. Leon Bakst—or whoever is responsible—has made in the stage settings of the Sleeping Princess. For this fairy tale, like all fairy tales, is a uni-



ONE OF THE STAGE SETTINGS OF "THE SLEEPING PRINCESS" AT THE ALHAMBRA.

versal thing, found, in one form or another, all over the world. Moreover, the universality is not only quantitative, it is also qualitative; it goes to the root of human desire and passion, and presents to the mind a facet of reality; consequently it has nothing whatever to do with any particular time and space. It is a fairy tale and, as such, is valid always and everywhere.

But to M. Serge Diaghileff, to M. Leon Bakst, and the rest, this perfectly valid and essential idea either is not appreciated or is considered to be negligible and doubtless without commercial value. So they proceed to "periodise" the whole thing by providing some realistic seventeenth and eighteenth-century stage scenery—in the first and last scenes it is baroque to the extreme—with a crowd of people reminiscent of Fragonard and Watteau. I was personally acquainted with the king, for was he not dressed up like the picture of Charles II in the history book I had when I was a little boy?—and so on, and so on: habitués of musical comedy are perfectly able to fill in the gaps. Poetry and fairyland had vanished, and one was tempted to look round the stalls to see whether the Russian Ballet of this season was likely to pay.

Criticism number two more nearly touches our work as architects. It is a criticism of technique, and is applicable to most of the stage rendering of architecture at the present day. The fashionable vice in the design of current stage architecture is naturalism, or perhaps I should say realism, as being the more exact word. Scene painters, although invariably baffled by architectural detail, try to make these buildings to look as real as possible, and in so doing they make the noose on the rope wherewith they get hung. For note what happens: The design of the scene has to be worked out in perspective with a horizontal line at a certain level, say six feet above the level of the front of the stage. Most lines in the composition will appear to vanish towards a point at the back of the stage on this horizontal line, or they pass away on one side or the other. The result is quite right for those seated in the stalls or pit, but from the dress circle, and especially from the upper circles, the perspective tends to become distorted.

This distortion, being almost inevitable in any realistic treatment of architecture on the stage, arises as much from faulty technique as the strained effect that would result if an architect were foolish enough to try to form a swept valley in a pantile roof. The method goes against the gr of the technique, and cannot be done without agoni effort, because the approach to the problem is wrong. can only be rectified by an entire change of attitude in rendering of architecture on the stage.

The whole scheme of things must be simplified so as reduce the element of perspective to a minimum, as been done by the late Mr. Lovat Fraser in "The Begg Opera," or it must be conventionalized, even to the ext of turning the architectural elements into symbols, wh seems to be the line of development suggested by Gordon Craig. But in "The Sleeping Princess" the tr ment of the architectural elements, especially in the and last scenes, is as realistic as that of any pantomi with the inevitable result of distortion in perspective and there, a distortion slight but irritating because necessary.

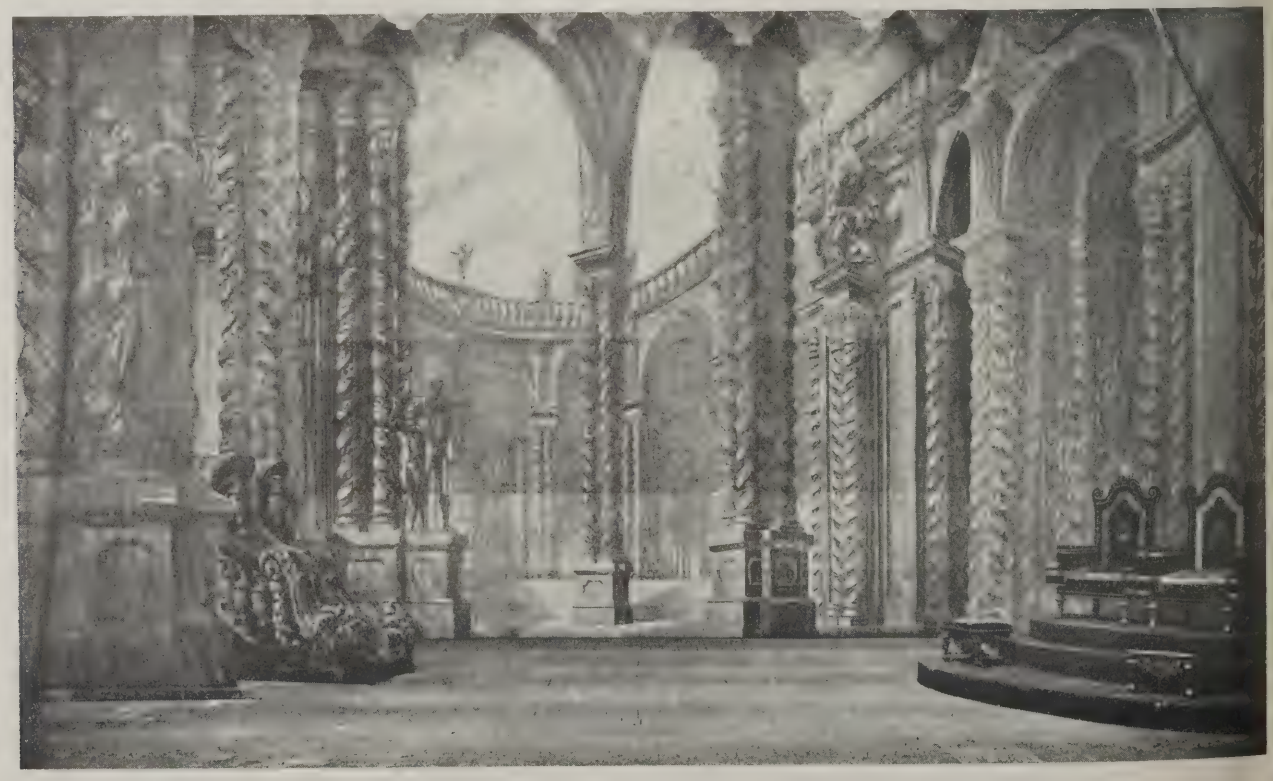
To make use of an idea to which we are indebted Benedetto Croce, the image of the thing in itself has b imperfectly apprehended in the present production "The Sleeping Princess," consequently it fails in expres

Neither is it coherent; but perhaps it is as well, for coherence of the music and dancing with such stage sett as are illustrated would have reduced the performanc the level of a country pantomime. Unity might have b achieved, but at the sacrifice of everything else.

There are other points which might be discussed, suc the apparent lack of appreciation of fine form due poss to the influence of post impressionism or post-post pressionism, which is made all the more evident by trast with the beautiful forms of the dancers; but tha another matter and does not concern us here.

We have ventured to make this criticism in connec with the Russian ballet rather than in connection with other production, because there is no reason why it sh not achieve greater things, and because there was a in the earlier days when it seemed as if it were on verge of attaining that perfect unity of expression wit which no work of art can be called great.

To revert to our twofold criticism. The poor pewter of periodicity cannot contain the significance of any tale. An art straining under a technique imposed b realistic method cannot express on the stage the essen of architecture.



ONE OF THE STAGE SETTINGS OF "THE SLEEPING PRINCESS" AT THE ALHAMBRA

Higher Buildings for London

The Latest Developments

MPORTANT developments are taking plac: with regard to the movement to provide London with buildings of greater height and larger cubical content. In our issue for October 26 we stated that, since the .A. Building Act Committee took the matter up, the ers' Chamber of Trade of the United Kingdom and ncorporated Association of Retail Distributors had ed the field. Now it is announced that the Association adopted a scheme prepared by the Committee, and in order to strengthen their case, the secretary of the iation, Mr. T. Ernest Jackson, supported by a ber of expert witnesses, is presenting evidence to the l Commission on Fire Brigades and Fire Prevention sitting.

The Proposed Increases

ıder the scheme, permission is asked to erect buildings height of 120 ft. from the street to the top floors, and e sites face open squares, parks, or river, to a height of t. provided lighting is not affected. It is proposed to ruct the buildings of steel encased in concrete, and all other materials shall be fireproof and fire-resisting, automatic sprinklers, fire alarms, and extinguishers be provided throughout the buildings, and that the nal staircases shall be constructed to enable any floor e quickly cleared. At present the London Building imits the height of buildings to 80 ft. above the street , but large West End and other London stores are ng themselves severely cramped by this restriction.

ıe action of the Association should give great satisən to Mr. Delissa Joseph and his colleagues, who for past two years have been making every effort to ard the movement. It also assumes great importance ew of the fact that during the next five years compreive rebuilding is to take place in Regent Street, adilly Circus, Oxford Circus, and High Street, Kenon.

Attitude of the R.I.B.A.—

ıce the adoption of the scheme by the Association Paul Waterhouse, the President of the R.I.B.A., has ten to "The Times" with regard to the attitude of the B.A. In the course of this letter Mr. Waterhouse says: committee of the Institute has, it is true, pronounced vour of the movement, but its conclusions are accomed by a minority report of contrary tendency, which much favour in important quarters; and as the ıcil of the R.I.B.A. has as yet given no vote on the ect it is premature to assume that the representative of British architects is in favour of a change in the ing regulations."

—and of the Society of Architects

ıe conviction that we are building under antiquated lations has been expressed by Mr. C. McArthur er, secretary of the Society of Architects, to a repreıtive of the Press. Mr. Butler pointed out that present arrangements were made at a time when rity against fire, for example, was nothing like so uate as it now is. Nobody would advocate putting up buildings wholesale, but where there was a fair amount ace, so that light and air could get through, many of ld objections no longer held. "I do not like the term scraper,'" said Mr. Butler. "It suggests that you are g to build something extraordinary. 'Higher build-' is better, because it indicates simply the advisability vising the regulations to meet the demands of the age. doubt there must be a limit, but really it depends on character of the site. Though I cannot speak for architects generally, I cannot understand any architect, from the architectural point of view, objecting to higher buildings in their proper place."

Mr. Delissa Joseph, in explaining his views on the subject to the R.I.B.A., was very careful to point out that he does not advocate "skyscrapers," nor schemes for costly clearance. He said: I only advocate that, by making the Building Act more elastic, owners of property may, in suitable situations, be enabled to develop their land, from time to time, as the leases fall in, to an adequate height, and thus gradually to relieve the pressure of accommodation in London.

At the same time I suggest that the largely increased rateable value which would result could be capitalised and applied in the widening of congested thoroughfares. We should bear in mind that, whilst in the City of London street improvements have been largely paid for from the funds of the Bridge House Estates, there is no such fund available for the widening of streets in other parts of London, and therefore this scheme for higher buildings would offer a new available source for the production of the necessary capital for such public improvements. The other uses of such funds which obviously suggest themselves are the further equalization of rates in the poorer boroughs and the financing of housing schemes in the outskirts.

Although Mr. Joseph dealt more especially with the question of the pressure of accommodation for commercial and residential purposes in Central London, he said: There is no reason why the programme I have advocated should not be carried further afield and applied to the existing main routes leading out of Central London to the four points of the compass, nor why similar advantages should not be taken for the adequate development round the numerous commons and open spaces within easy reach of the centre.

Provincial Precedent

There is an interesting precedent for exceeding the 80 ft. in the case of the city of Manchester, where there are many buildings at least 110 ft. in height, the local regulations, as I am informed by Mr. J. Swarbrick, being on the very generous lines that a building may be two and a half times in height the width of the street in which it is situated. There is a well-known illustration of higher buildings on the riverside in the case of the Royal Liver building at Liverpool, which stands 170 ft. above the level of the river bank, comprising ten stories, varying in height from 23 ft. to 15 ft.; and there are five stories in addition in the square of the towers, the total height to the top of the towers being 312 ft. Mr. Aubrey Thomas, the architect of that splendid building, tells me he has erected the Tower Buildings to a height of 112 ft. to top of parapet, with a tower rising to 153 ft., besides several other buildings to a height of over 100 ft.

Traffic Advantages

If London is to hold its place as the world's centre, some such development as I have ventured to indicate must be undertaken. I submit that the gradual development of London upon the lines indicated would, in fact, be of the nature of a piece of grandiose town-planning. Instead of these suggestions increasing the traffic problem they would contribute to reducing it, as the more business and residential premises provided in central positions the less traffic would result between the centre and the outskirts, at the same time materially helping the housing problem and relieving the pressure at present existing in the outskirts.

New Entrance to an Oxford Street Store

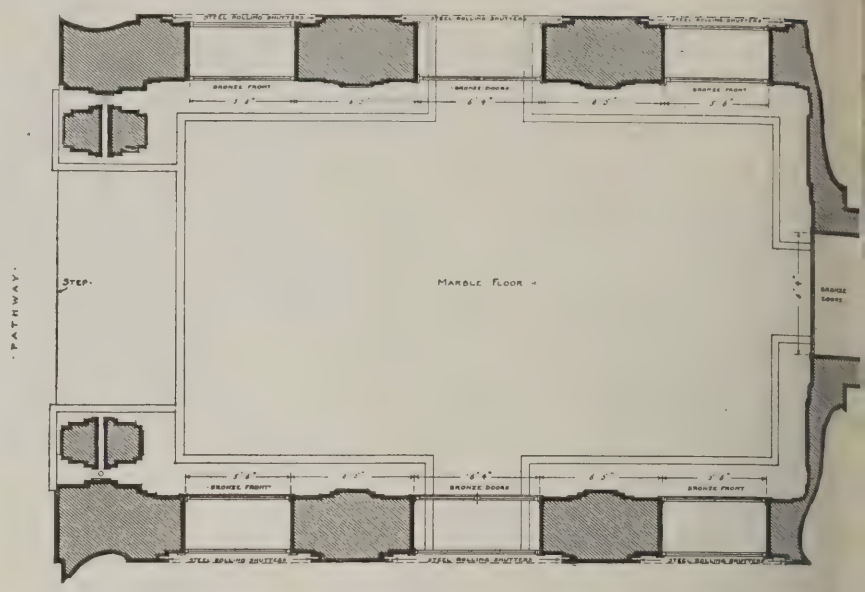
A very dignified and attractive new entrance hall has lately been erected at the premises of Messrs. Marshall and Snelgrove, Ltd., Oxford Street, from the designs of Messrs. Forbes and Tate, FF.R.I.B.A. The old entrance, which consisted of swinging doors, 6 ft. wide, leading directly from the pavement into the shop, proved so inconvenient owing to congestion that a new entrance hall was decided upon in January, 1920. An additional reason for undertaking the work was the fact that the London County Council required a fire-partition wall in the position of the east side of the entrance in order to bring the fire compartments of the building within the stipulated 250,000 cubic feet. This necessitated practically the rebuilding of the basement under the new entrance.

As a result, customers, during the progress of the work, had to rely on the entrances in Vere Street and Marylebone Lane. As soon as the new reinforced concrete floor was finished a temporary covered way was made through the new entrance, above and on the sides of which building operations were then proceeded with.

The external work in Hoptonwood stone was carried out by Messrs. G. and A. Brown, of Hammersmith, and the internal work, including all bronze work, by the Birmingham Guild Ltd. The interior of the hall is carried out, up to the cornice, in Chiampo Bianco marble, an Italian marble of a warm grey colour, with the introduction of Belgian black marble as architraves around the doors. The doors and showcase windows are carried out entirely in bronze, and in the surrounding architraves of both doors and windows vitreous enamelled bronze bands of a blue colour are introduced, the rosettes being enamelled in black and gold. The floor of the hall is carried out mainly in Craigleith stone, with a black marble border and with the introduction of black and grey marble in the floor itself. The ceiling is treated in plain white plaster, the electric fittings b carried out in bronze. The name pl are in bronze, with the lettering fille with vitreous enamel, and the R Arms executed in enamel.

To overcome the difficulty of clo the entrance hall after business ho slots were formed in the piers on each of the opening, into which the bro collapsible gates are folded when no use, being then concealed by nar bronze doors let into the bronze ar trave which goes around the entra The three doorways leading from entrance to the shop, and also the showcases, are backed with steel rol shutters.

The builders were Messrs. Hall, Bed & Co. Messrs. Burke & Co. executed marble work, and Kinnear patent s rolling shutters were supplied by Mes A. L. Gibson & Co., of Twickenham.



PLAN OF NEW ENTRANCE HALL TO PREMISES OF MESSRS. MARSHALL AND SNELGROVE, OXFORD STREET. FORBES AND TATE, FF.R.I.B.A., ARCHITECTS.



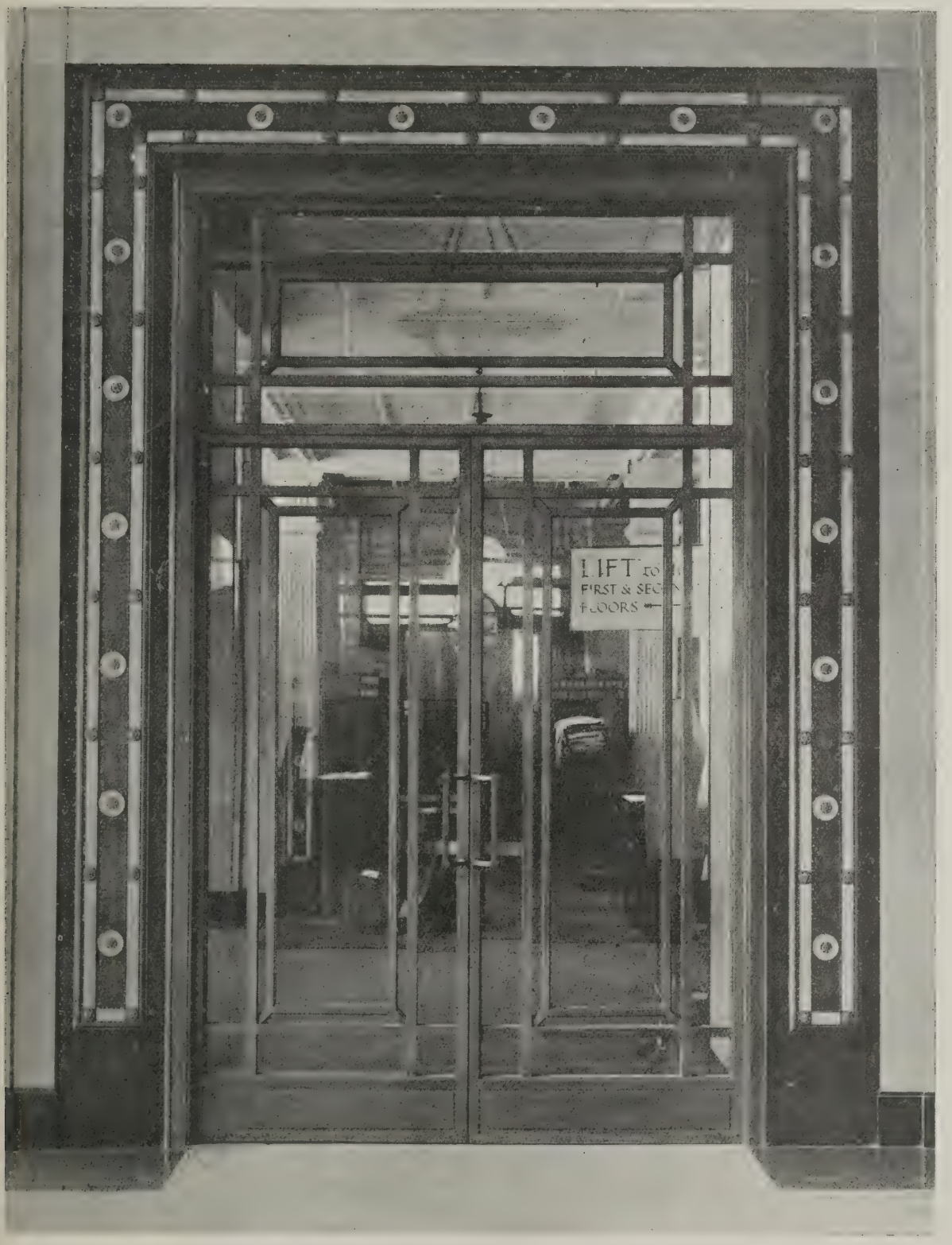
BRONZE PANEL AT ENTRANCE OF AN OXFORD STREET STORE. FORBES AND TATE, FF.R.I.B.A., ARCHITECTS

Students' Evening at t R.I.B.A.

About 120 students from the archi tural schools recently gathered in galleries of the R.I.B.A. to inspect Exhibition of American Architect Messrs. Austen Hall, Miller, and How Robertson had kindly consented to present. Catalogues were distributed some time was spent in strolling ro and looking at the exhibits. Mr. Aus Hall, in a few well-chosen words, in duced Mr. Miller. Mr. Hall remar that a great opportunity was now be presented to students of learning m about the condition of architecture America, and that they were fortunat having Mr. Miller in their midst to them the benefit of his wide experie Mr. Miller then gave an informal talk the developments and style of Ameri architecture, illustrating his remarks reference to exhibits in different part the galleries. At the conclusion Mr. Miller's remarks, Messrs. Hall, Mil and Robertson conducted the stude round the galleries, pointing out the m features of interest in each exhibit.

ent Architecture. 134.—New Entrance to Messrs. Marshall and Snelgrove's Premises, Oxford Street, London : Detail of Bronze Doors

Forbes and Tate, FF.R.I.B.A., Architects



These doors are carried out entirely in bronze, the surrounding black marble architraves being relieved by vitreous enamelled bronze bands of a blue colour, with rosettes enamelled in black and gold.

Premises, Oxford Street, London

Forbes and Tate, FF.R.I.B.A., Architects



The interior of this hall is carried out (up to the cornice level) in Chiampo Bianco marble of a warm grey colour, Belgian black marble being introduced as architraves around the doors. The floor is mainly of Craigleith stone, with a black marble border. The doors are of bronze.

The Preservation of Stone

By NOEL HEATON, B.Sc.

HE preservation of building stones is, by common consent, one of the most baffling, and, therefore, one e most fascinating problems with the technical chemist is faced. In ng the subject up for discussion more, let me say frankly at the that I am not coming forward ny claim to have solved the prob- nd to offer architects a sure and n process for preventing and arrest- cay. There are many, both amongst ects, geologists, and chemists, who er that the problem is definitely ble, and any attempt to solve it is te of time. Whilst I am not so pes- ic, the more experience I gain on atter, the more I realize the diffi- s in the way of a really successful on. It can only be accomplished by nited efforts of all concerned in the enance of our public buildings, and onstant exchange of experiences. is no need for me to enlarge upon portance of the quest. It must be t to everyone that hundreds of nds of pounds are spent annually ping the stonework of our buildings afe, and that, in spite of every care, istoric buildings are crumbling

H.M.O.W. Investigations

problem is not one that should be private enterprise: the discovery efficient method of preservation is ter of national importance, and can e dealt with on a national basis. Office of Works has fully recognized nd has had the matter under con- observation and investigation for Every process that has been intro- has been given full and impartial and extensive investigations have nade under their direction by Pro- Church and, since 1914, by Pro- Laurie. Recently, the Department ntific and Industrial Research has aken investigations, more par- ly in connexion with the protection stonework.

yet no comprehensive account of sults of these investigations has published, and in the absence of letailed information, the architect ted with the preservation of build- nay well be in doubt as to what to pursue. My purpose, therefore, so much to propound any new s as to survey in a concise form the t state of our knowledge of the t, and present for criticism and sion my views as to what can and annot be done, in the hope that it e of some little practical service.

preservation of old buildings where has already taken place, is in- more difficult than the protection ones—we have to take the build- it stands and do what we can with ancient times difficulties of trans- endered the choice of stone more l, and unsuitable local stone was used, and it was often badly d and badly laid. Little precau- as taken to prevent the access of and the designers, naturally, did not provide for the drastic conditions which prevail in modern times.

We have to bear in mind also that, up to a certain point, the weathering of stonework is a distinct advantage—we do not wish to destroy the time honoured effect of old buildings any more than one would want new buildings to resist the mellowing effect of time. The drastic restoration of old buildings, the ruthless removal of every sign of decay and conversion to a bright new structure, is rightly deprecated at the present time. *So long as one possibly can*, the right thing to do is to leave an old building alone.

But when the effect of time passes the limit of "a perfecting by God of the handwork of man," and decay becomes unsightly and unsafe, something has simply got to be done to arrest it, and to re-construct the already decayed stone. That is where the search for a reliable preservative, which will protect the building without in any way detracting from its beauty, becomes of paramount importance.

The properties demanded of a perfect stone preservative are many and conflicting, and may be briefly tabulated thus :—

1. It must penetrate easily and deeply into the stone, and remain there on drying.
2. It must not concentrate on the surface so as to form a hard crust, but at the same time harden the surface sufficiently to resist erosion.
3. It must prevent penetration of moisture, and, at the same time, allow moisture to escape.
4. It must not discolour or in any way alter the natural appearance of the stone.
5. It must expand and contract uniformly with the stone so as not to cause flaking.
6. It must be non-corrosive and harmless in use.
7. It must be economical in material and labour of application.
8. It should retain its preservative effect indefinitely.

Various methods have been tried for determining the effect of weathering artificially. Professor Dodge some time ago proposed to determine the resistance to natural weathering by suspending test pieces of known area and weight in water through which a stream of carbon dioxide was passed and determining the relative loss of weight. Professor Laurie recommends placing similar test pieces under a bell jar in which they are subjected to the fumes of hydrochloric acid for a given time, and determining the loss of weight. Dr. Desch utilizes the atmosphere of an ordinary laboratory fume cupboard in a similar manner. I have attempted myself to produce an "accelerated atmosphere" by exposing the stone to water vapour under pressure in an autoclave, and determining the effect under known conditions of temperature, pressure, and time of exposure. Such laboratory methods, applied to service conditions, are in general unsatisfactory. On the other hand, it is impracticable to determine the effect of varying the method of treatment and application by making exposure tests and waiting ten or twenty years for the results.

We can, however, pretty well make up our minds to one thing—that we are not likely to discover a process for converting a soft limestone into a material which will resist all the agencies of decay indefinitely, and be capable of universal application to all kinds of stone under all conditions of exposure.

The preservation of stone probably always will remain a matter of careful supervision; the utmost we can hope for is to be able to prevent decay for a considerable period by treatment varied according to the nature of the stone and the conditions of exposure, and at present we are far from even being able to do that.

But whilst progress is thus slow and uncertain, the decay of our historic buildings is quite the reverse. Something has to be done, and it is on the principle that it is better to do what one can at once than wait for the millenium, so slow in coming, that I have attempted in this paper to review the present situation and express my views in the hope that they may be of some practical assistance to the architect.

Some Conclusions

Let me now summarise for criticism and discussion the conclusions I have arrived at :—

1. New work can be rendered to a certain extent more resistent to decay by treatment with fluosilicates, provided the strength of solution and method of application is adjusted to suit the stone used.
2. No preservative treatment will be effective on faulty or face-bedded stones.
3. Constructional methods of reducing decay (prevention of damp, effective carrying away of storm water, etc.), are more important than preservative treatment.
4. For outside work on old buildings no preservative at present known serves to preserve decayed stone for more than a limited period. The most economical treatment is dressing with soft soap and alum, renewed every few years.
5. In interiors, where the stone has been corroded by sulphur compounds, baryta treatment is, in many cases, beneficial, but it should only be used with restraint and under careful supervision, and should be followed by distempering.
6. Preservative treatment should only be employed where it is certain that it can, at the worst, do no harm. For this reason articles of unknown composition should be avoided, and only materials used the action of which is well understood.

Progress towards the goal can only be obtained by constant exchange of experience and study of results. That is the line I have pursued, and I want, in conclusion, to express my gratitude for the unfailing assistance I have received from the many to whom I have applied to check the results of my own experience. In particular, I have gratefully to acknowledge that this paper would have been a very sorry affair without the support of Sir Frank Baines, who has placed all the resources of H.M. Office of Works at my disposal for collecting and checking information. In short, the generous encouragement that has been showered upon me cannot be overestimated.

acts from a Paper read before The Royal f Arts.

Book Reviews

The Art of Drawing.

The reason why drawing is a difficult accomplishment lies not so much in the fact that forms are hard to draw as that they are hard to see. That is a trite enough observation, but it is really the truisms that need enforcement, and Mr. Allen W. Seaby, in his excellent book "Drawing for Art Students and Illustrators," makes the restatement very neatly. What the art student suffers from, says the author, "is not, as he supposes, an unskilled hand, but an untrained eye"; and also, one would add, an untrained mind, for the eye sees no more than it knows. The real difficulty of drawing lies in the intellectual labour it involves. "Mastery over technique does not come by gaily tracing contours with a pencil, but by more or less painful efforts to track down the subtleties of form."

Simple as it appears, neglect of this one issue is responsible for nearly all the crimes perpetrated in the studio; and is especially responsible for those systems and methods of drawing with tricks and triangles which have multiplied *ad nauseam* since the middle classes began to study "Art" *en masse*. Instead of learning to draw, you learn *how* to draw, with the result that art schools are condemned wholesale by observers like Tolstoy as being nothing more than a tangle of systems of art.

Mr. Seaby, however, belongs to the new type of art teacher and art school. He realizes the imbecility of drawing mechanically according to systems, but he also realizes the importance of system in the development of a work of art. He has therefore in his book combined two ideas: that a drawing must be an artistic creation, and that it must be a constructional achievement like the modelling of a figure or the designing of a building; formulæ and systems being justified only so long as they contribute to constructional perfection. Prisms, triangles, cylinders, lifelines have their very excellent uses; Mr. Seaby does not despise them. But they must remain servants always to the condition that "every drawing done should be an artistic effort, and made with artistic intention, for drawing cannot be divorced from art." And he combines his æsthetics rather cleverly with his technical advice.

The only thing in the book at which one can fairly quibble is the author's style. He covers the ground, but is inclined to meander by the way. Occasionally one gets the sensation of spinning round in a circle, which is due possibly to his efforts after simplicity. This does not matter a bit, of course, but it is well to remember that a hard word put in a fierce way will often give a beginner more insight into the essentials of a problem than a great deal of laboured simplification. In one kind of writing, however, he displays a positive genius—in the inscriptions under his illustrations. As a matter of artistic education, there is as much in these sixty-eight reproductions as in all the pages of letterpress in the book, good as they are. In Fig. 58, for instance—a chalk drawing by J. F. Millet of a peasant—Mr. Seaby puts underneath, "he (the artist) has been quick to seize the forms which emerge from the heavy, hanging garments." This is simple enough, yet on studying the drawing one admits that it is criticism of a high order.

Under the red chalk drawing by Alfred Stevens (which we reproduce in black and white), he is careful to put "Red chalk should be avoided by *students*. The colour detracts their attention from the form." Yet in another part of the book he advocates the use of charcoal as the best medium for students. Charcoal is not coloured, it is true, but it is a deadly instrument to put into the hands of the beginner, who nearly always needs the self-restraint which the pencil practically enforces.

Stevens's drawing reveals the sculptor. The feeling for modelling, for roundness, is evident. You are conscious that the artist has drawn the back of the figure as well as the front. But unfortunately the figure also suggests what the Wellington Memorial reveals—vigour and energy enough, and yet a certain hardness, a certain lack of sensitive feeling. True, this is only a study, but a study should be a work of art if it comes from an artist. One would say from the drawing that Stevens lacked human tenderness.

A. DE C.

"Drawing for Art Students and Illustrators." By Allen W. Seaby. Price 12/- net. B. T. Batsford, Ltd., 94 High Holborn, London.

Northampton Polytech Prize Giving

There was a large attendance of dents and friends at the recent dist tion of prizes at the Northampton technic Institute, Clerkenwell. certificates and prizes, which were sented by Mr. A. Barton Kent, Pres of the Entente Cordiale, numbered 300, and were awarded during the by the governing body of the Inst the City and Guilds of London Insti the British Acetylene and Welding ciation, the St. John Ambulance Ass tion, the London Institute for the vancement of Needlework, the Lo County Council, the Worshipful Com of Skinners, and by Mr. John Mr. Kent dwelt at some length the necessity for Great Britain pu its shoulder to the wheel in order t the peace. He impressed upon all sent the necessity for strenuous wo that object was to be attained. principal of the Institute, Mr. R. lineux-Walmsley, D.Sc., F.R.S.E. his report, stated that the enrolme individual members and students d the year reached a total of 3,802, pared with 3,118, the highest f hitherto recorded since the opening o Institute, over twenty-five years ag



A DRAWING IN RED CHALK. BY ALFRED STEVENS.
(*From "Drawing for Art Students and Illustrators."*)

The British Empire Exhibition

special Act of Parliament the Government acquired powers to be £100,000 to the guarantee fund British Empire Exhibition, on con- that not less than £500,000 should vided from other sources. That on has been fulfilled; the guarantee now amounts to over £800,000, ve of the Government contribu- In view of the magnitude of the n contemplation it is not proposed ceed with the construction of the tion buildings and grounds, upon osen site at Wembley Park, until al amount of the guarantee fund reach one million sterling. The e of the fund is to provide security which advances for the construc- nd organization of the Exhibition obtained from the bank until such s revenue begins to accrue.

mbley Park, an expanse of undulat- oded land, within six miles of the Arch, and well served by railway has been chosen as the site of the tion, which will be open from April ober in 1923. The ground extends acres, and at the southern end rises a considerable hill. A lake, n outflow to the river Brent, adds attractive features of the site. the ground, which is at present y free from buildings, the Exhibi- ll be laid out. The structures to cted will be of the most modern and of a type specially suitable e purpose in view; they will be nent, and while designed in the first for the purpose of the British e Exhibition, will be also suitable sequent exhibitions and trade fairs. onal sports ground, in the form of ptical arena with accommodation ,000 spectators, is included in the or the site.

rs. John W. Simpson and Maxwell , FF.R.I.B.A., are the architects Exhibition.

umber of committees are being among men of distinction in all es of research and practice. These ttees will arrange displays calcu- o arouse public interest in all efforts quer disease and unhealthy con- of existence. Housing and sani- will be given especial prominence. rds, divided into five grades, will, ng to the "Board of Trade Jour- e adjudged to exhibits of merit. ssification which the Council have epared for use in connection with rk of the juries (who will, in the tance, judge the exhibits) has been ly compiled, and comprises the ng main headings and sub-divi-

ction A.—Food of the Empire.

culture, Horticulture, Viticulture, es, Food Products and Beverages.

B.—Raw Materials of the Empire.

rals, Timber and other Forest ts, Agriculture, Marine, Silk.

C.—Communications of the Empire.

s and Marine Engineering, Road- and Road Transport, Railways ramways, Aeronautics, Postal, nic, and Telegraphic services.

Section D.—Machinery and Implements of the Empire.

Electrical and Mechanical, Agricultural and Food, Mining and Metallurgical, Textile, Leather, Chemical, Paper and Printing, Miscellaneous.

Section E.—Manufactures of the Empire.

Metal Industries, Textiles, Leather Industries, Tanning, Chemical Industries, Dyestuffs, and Perfumery, Paper, Stationery, Printing, and Photography, Miscellaneous Industries.

Section F.—Homes of the Empire.

Town Planning, Decoration and Modern Furniture, Lighting, Heating, and Ventilation, Sanitation and Hygiene, The Garden.

Section G.—Education, Science, and Art of the Empire.

Education, Medical Science, Fine Art, Industrial Art, Books and Bookbinding.

Section H.—Recreations of the Empire.

Athletics and Games, Travelling and Sporting Equipment.

Section I.—Traditions of the Empire.

Navy and Army, Overseas Settlement, Social Institutions.

Claud Lovat Fraser Exhibition

One of Anatole France's maturer apothegms has it that, "Tout ce qui ne vaut que par la nouveauté de tour et par un certain goût d'art vieillit vite," a deliberate ruling which could conceivably be trotted out whenever a discussion of Lovat Fraser's art takes place, because it may be argued that, behind a very exceptional facility for pictorial representation and an immense talent for stirring in a most winsome manner our imagination, lay no basic genius; at any rate, none of the kind that outlasts the whimsicalities and strange fancies of a particularly self-deluding age.

Be that as it may, there is no denying Lovat Fraser his positive value as an artist of the minor arts, and especially so in regard to his theatrical creations. All this crowds upon one as one goes round the memorial exhibition of his work now being held at the Leicester Galleries. There you can see why his clear colours are a delight even to the most ignorant eye and the detail of his subject a joy to the wits, for the 200 exhibits are an adequate epitome of the variety which his fertile mind flung out so freely during the six years—the effective span, all too short—of his artistic life.

It includes everything for which he was so well known. Stage dresses and décors, masks, posters, broadsheets, toys, magazine covers, Christmas cards, calendars, book plates. It is all so able and so vivaciously carried out, all so nicely designed and coloured. Colours, evidently, made passionate and insistent calls upon his mind; often daring, they are always harmonious, witness the fine promiscuity of reds, purples, and browns of "Piers Gaveston" in Marlowe's "Edward II" (80), and in "Design for a Panel for a Painted Room" (140)—a very beautiful sketch which must rank pretty high in modern work of this kind. As is to be expected, this happiness for daring blends invades his stage dresses and sceneries. "Design for a ballet" (68) proves it at a glance, and there are dozens of them. Unlike many of his compeers, Fraser was not without a subtle sense of humour. A deal of it shows through the warp and woof of isolated works. Anticipating Wyndham Lewis and O. R. Dicky, he evolves amusing types of "tyros," such as "Arlechino" (87), only his do not display caustic characteristics of expression. No. 55, beside its amusing title, "The Veracious and lively effigies of that most true Knight and worthy man, Sir Semper Doloroso," bears traces of a charming wit.

His line drawings are extraordinarily crisp; they show great freedom and vivacity, a judgment more than borne out when one comes to his broadsheets and lithographs of two naked women shown in chaste outlines (134) and (138); here, however, the significance of the drawings is partly defeated by an unfortunate emphasis of the hair, which as spots are too violently black, and so upset the reticence of the design.

A word should be said in connection with the more architectural sketches, for there are a few such examples. "Sutton Farm" (128), "Cottages at South End, Rushden" (120), and especially Charles Lamb's cottage "Button Snap" (124). Were these architect's sketches they would at once set a new standard for more sensitiveness of presentation. Harold Falkner, and perhaps Sidney Jones at his very best, are the only draughtsmen remotely to approach such delicacies of touch. Perhaps it would not be amiss to detect such intimacy in drawings of domestic architecture? But where Lovat Fraser is most useful to us is in his very able handling of colour, and the exhibition will do much to fire the legitimate fancies of all keen architects.

G. HOLT.

Enquiries Answered

Cost of Building, etc.

A.P.M. writes: "With regard to the chart of building trades' wages published in your issue for November 23, can you tell me what the total percentage of increase has been in the cost of building, alterations, repairs and the like, from year to year (October), from 1915 to 1920."

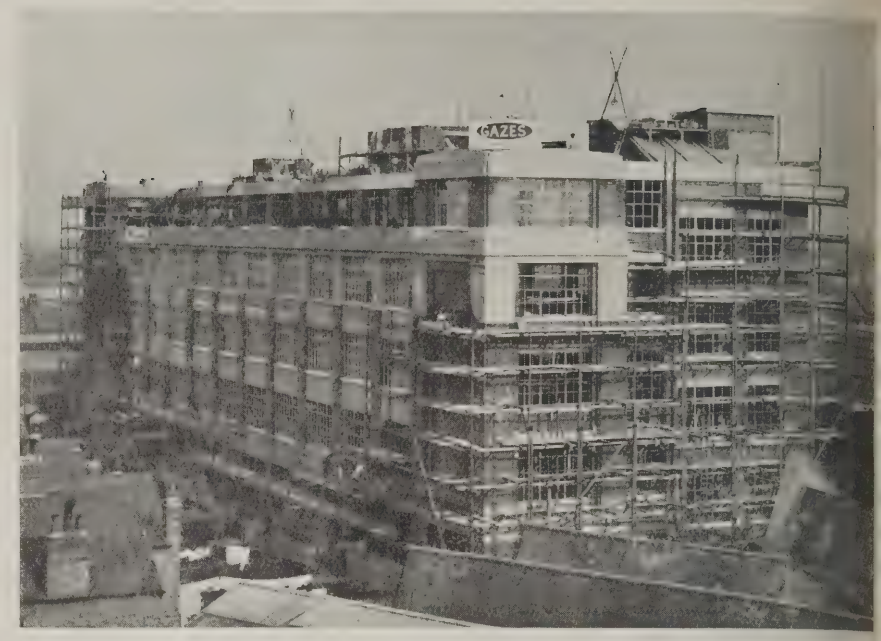
—This is rather a controversial subject. Apart from actual increases in labour rates, the labour itself became gradually more and more unproductive, with the result that builders were forced to cover themselves against loss by allowing a somewhat larger margin for contingencies. There can, however, be only a slight variation, up or down, on the following figures:—

Period.	Increase on Previous Period.	Increase on Oct. 1915.
Oct. 1915-1916	Nil.	Nil.
„ 1916-1917	7 %	7 %
„ 1917-1918	29 %	38 %
„ 1918-1919	44 %	98 %
„ 1919-1920	23 %	140 %

The figures are based on London, but country figures would be only slightly higher or lower.

A New Multi-Storey Building at Acton

This building has been recently erected for the manufacture of electrical equipment for motor cars. It is of steel-frame construction with Kleine floors and roof, each floor having an area of about 11,000 square feet. Externally the walls are faced with red facing bricks, with a blue brick plinth up to cill level of the ground-floor windows; the panels under the upper windows being of reinforced concrete. Special attention has been paid to the fenestration in order to obtain the maximum amount of light throughout the building, together with a certain amount of architectural effect. A special feature of this type of building is the heating and ventilating, which is of the plenum type. Fresh air after being washed is heated in winter (and cooled in summer) and distributed throughout the building by ducts, the inlets to the various floors—under local control—being arranged on alternate piers. By this means the usual unsightly trunking has been avoided. Sprinkler drencher and hydrant installations are also provided. The general contractors were Messrs. W. H. Gaze and Sons, Ltd.; the steel construction was carried out by Messrs. Redpath Brown & Co., Ltd., and steel sashes were supplied by the Crittall Manufacturing Co., Ltd. The heating installation was put in by Messrs. J. Jeffreys & Co., Ltd. Mr. W. Courtenay Le Maitre, F.R.I.B.A., was the architect.



THE C.A.V. BUILDING, ACTON, DURING ERECTION.
W. COURTENAY LE MAITRE, F.R.I.B.A., ARCHITECT.

The late Mr. H. W. Richards

The following appreciation of Mr. H. W. Richards, late Principal of the London County Council School of Building, Ferndale Road, Brixton, has been contributed by Mr. Alfred Everett, B.Sc., M.C.I., head master of the day schools :—

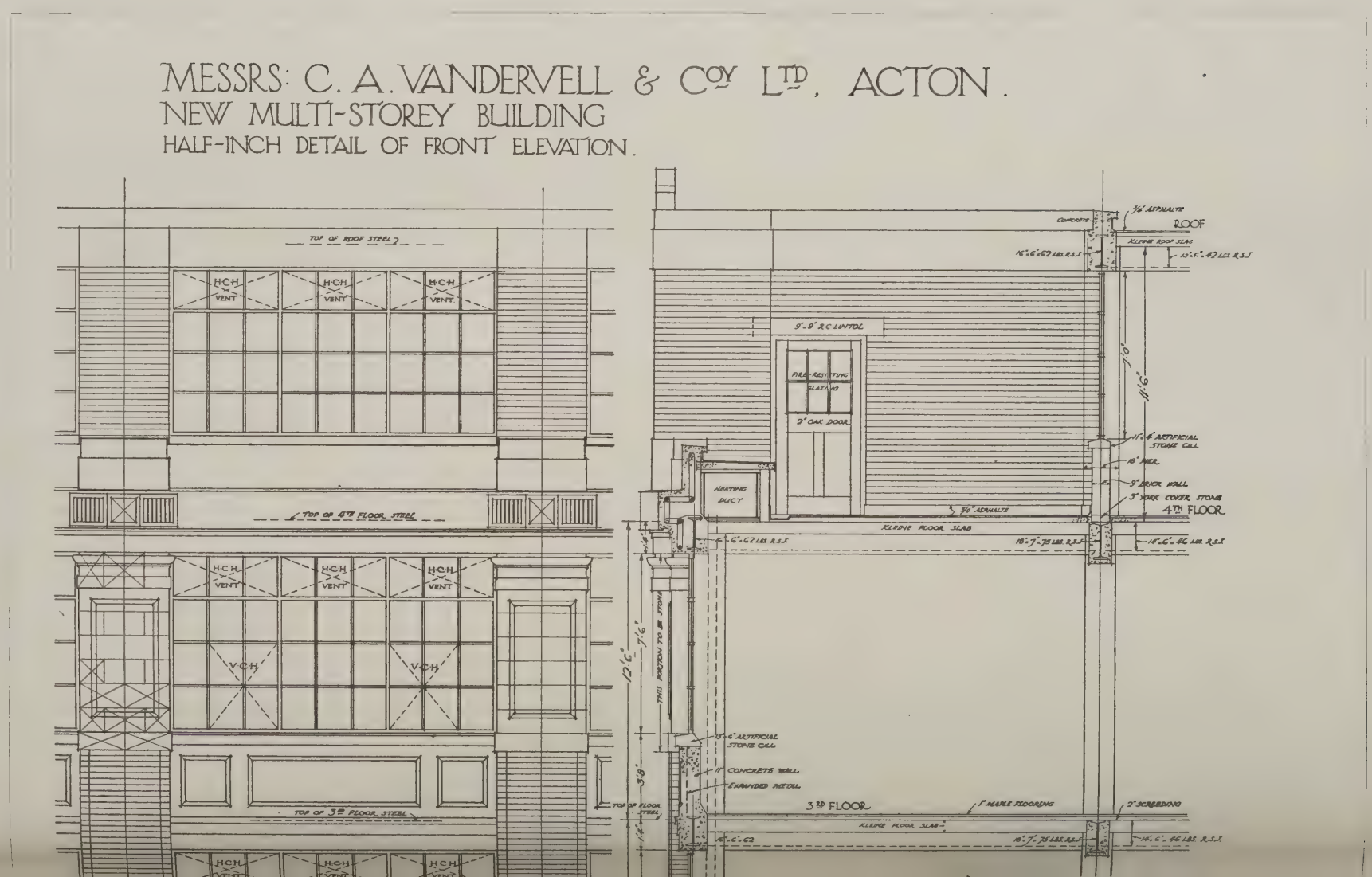
Coming from a family long associated with building and architecture—he himself was the head of a building firm—he early recognized the need for technical education for building students, and became one of the pioneers of the movement with which his name has now been associated so long. His enthusiasm led him to give up the commercial world for the cause of education. A born teacher, with keen interest in his students, he was remarkably successful, and many of the present generation of architects and builders owe much to him. At different periods he worked at Finsbury Technical College, at Westminster, in collaboration with the late Baroness Burdett-Coutts; later, at the Northern Polytechnic, and in 1903 he was called upon by the Technical Education Board to establish the prese School of Building at Brixton, where continued till his death.

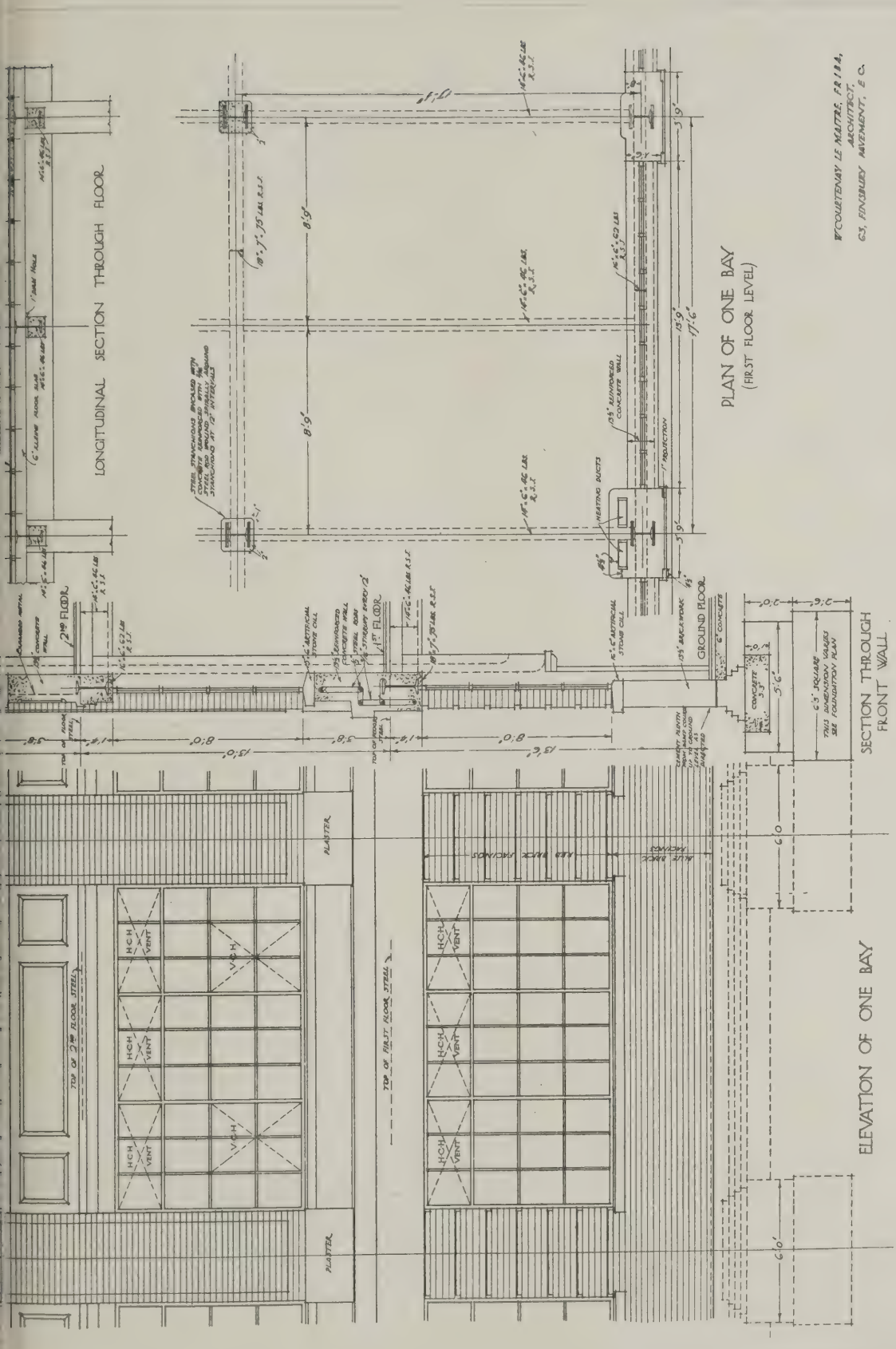
For a considerable period he w examiner in brickwork and masonry the City and Guilds of London Institu At a time when text books on buildi subjects were few, he published his bo on brickwork, which is still one of t standard books on that subject. began his work as a pioneer, and to f men is it privileged to influence the liv of so great a number of people. succeeded in putting the movement in strong a position that in his later ye he had the satisfaction of seeing t result of his work, and of knowi that it is bound to produce even m abundant results as time goes on.



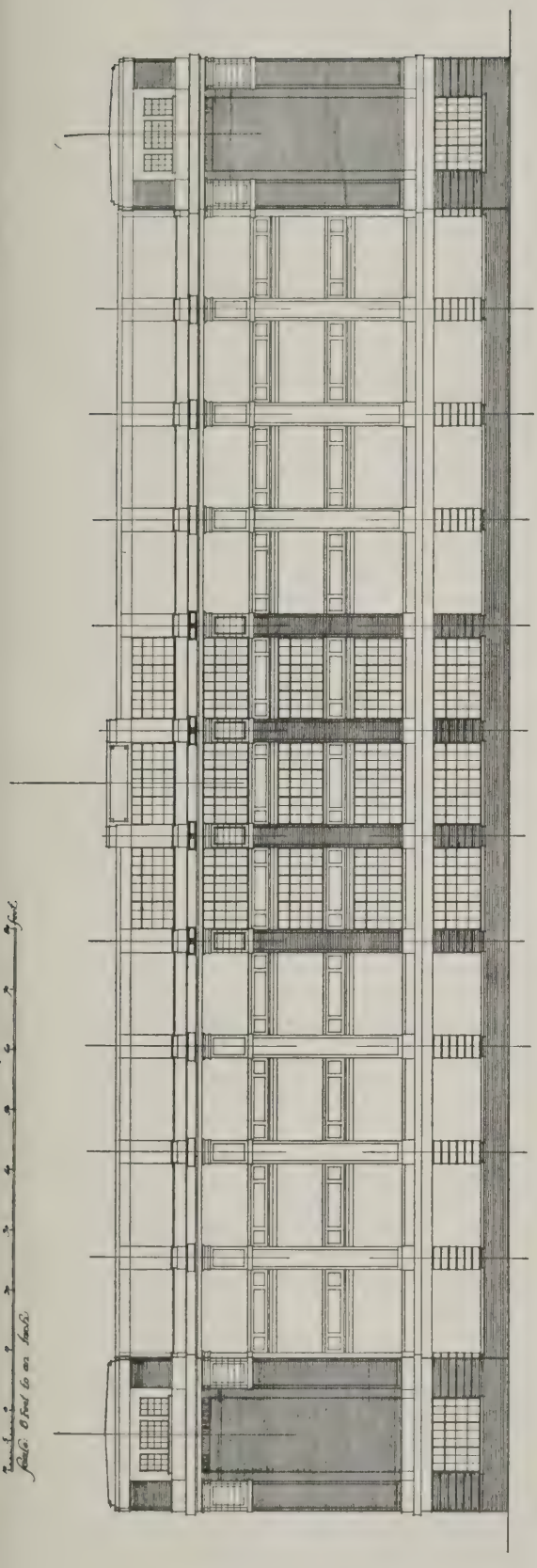
Architects' Working Drawings. 45.—New Multi-Storey Building for Messrs. C. A. Vandervell & Co., Ltd., Acton : Detail of Front Elevation

W. Courtenay Le Maitre, F.R.I.B.A., Architect

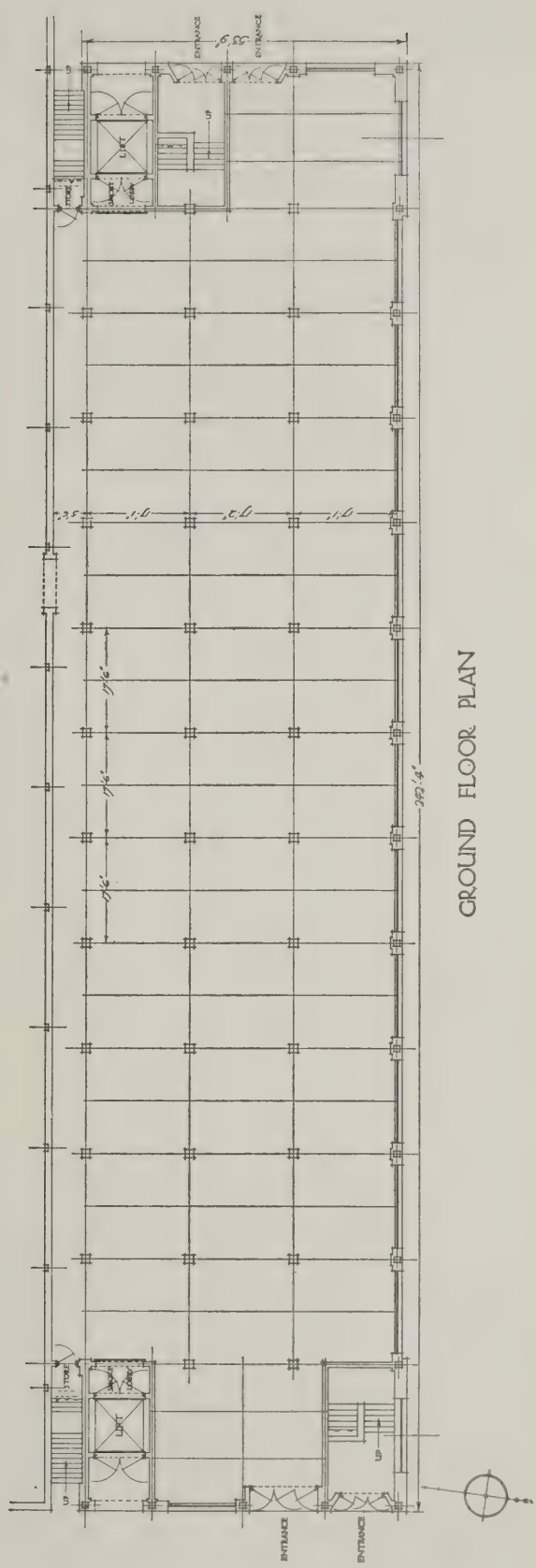




This building has been recently erected for the manufacture of electrical equipment for motor-cars. It is a steel-frame structure with patent floors and roof, the walls being faced externally with red facing bricks and with a blue brick plinth up to cill level of the ground-floor windows, the panels under the upper windows being of reinforced concrete. Some further particulars are given on page 718.



FRONT ELEVATION



GROUND FLOOR PLAN

NEW MULTI-STOREY BUILDING FOR MESSRS. C. A. VANDERVELL, LTD., ACTON: ELEVATION AND PLAN.
W. COURTENAY LE MAITRE, F.R.I.B.A. ARCHITECT.

Correspondence

R.I.B.A. Constitution League

To the Editors of THE ARCHITECTS' JOURNAL.

SIRS,—In your issue for November 30 there appeared a letter from Mr. Sidney Perks, F.R.I.B.A., urging the formation of a Constitution League R.I.B.A. This seems to have no other definite object than ultimately to wreck all proposals for the Registration of the profession, and to put an end to the tactful progress already made by the R.I.B.A.

If such should be the result, would it not be far better, in order to "lift" the registration proposals above all controversy, to form an entirely separate body, calling it the "Chamber of Architecture," including in its membership all members of the various institutes, societies, and qualified outside architects? This body would then rank as the central organization of the whole profession, and at the same time each individual institution or society would be able to keep its own degree or qualification on similar lines to the "Inns" in the legal profession. We should then have by that body a council elected by the whole profession, able to speak with a united voice, and housed in a building worthy of the profession.

W. WRIGLEY DIGGLE.

Training the Concretor

To the Editors of THE ARCHITECTS' JOURNAL.

SIRS,—May we express our appreciation of the suggestion made by Mr. Etchells in his presidential address to the Concrete Institute, as reported by you. This is a most statesmanlike proposal, which, if carried into effect, would be of the utmost value.

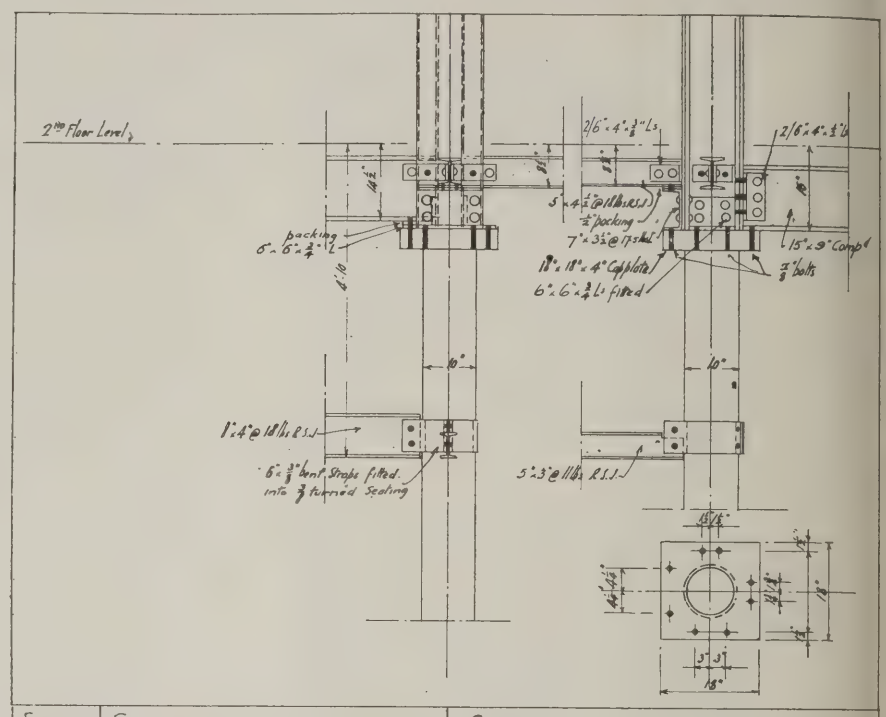
The British Léan Company, Limited,
W. J. BALFOUR MURPHY, Director.

Theory of Architecture

Mr. Lionel B. Budden, M.A., senior lecturer in the theory of architectural design in the School of Architecture, University of Liverpool, read a paper on "The Theory of Architecture" before the opening meeting of the Nottingham and Derby Architectural Association. He defined at the outset the various branches of architectural theory, and explained that he proposed to concentrate on the theory of architectural design itself. Three separate problems were stated and discussed—the possibility of a science of art, the nature of such a science in the case of architecture, and the value it might be claimed to have.

Benedetto Croce's "expressionist theory" was first examined, as the latest and most comprehensive philosophical denial of the possibility of an applicable theory of art. It was pointed out that the central fallacy in Croce's argument lay in the fact that the conditions of intuition were identified with those of externalization; and that once this error was exposed the case ingeniously elaborated by Croce to prove that art had no relation to logic fell to the ground.

The lecturer prefaced his development of the nature of a possible theory of architectural design by a brief historical critique of the principal schools of theory. He then proceeded to an analysis of content and form in architecture, and arrived at certain standards of criticism as a result These standards were grouped under two heads, the first relating to subject in i practical and spiritual aspects, the secon to composition as the expressive embod ment of subject. Finally, theory as substitute for tradition was considere and the claim made that, under existin conditions, the guidance of logical theore tic knowledge was of indispensible value



FLOOR	STANCHEONS	GIRDERS
ROOF H		
6TH G		
5TH F		
4TH E		
3RD D		
2ND C	47	
CEILING X	47	

FLOOR	STANCHEONS	GIRDERS
6TH G		
5TH F		
4TH E		
3RD D		
2ND C		
1ST B	47	
GROUND A	47	

STEELWORK IN A MODERN CITY OFFICE BUILDING. 4.—STANCHEON AND GIRDER DETAILS.

Construction. 22.—Steelwork of a Modern Office Building

WE conclude below the article on the steel construction of a large building which has lately been erected the City from the designs of Mr. Edgar nes, with whom Messrs. Whitaker Hall Owen acted as consulting engineers. first part of this article appeared in issue for Nov. 23.

s there was not room for the covering the bases at the first-floor level, the d columns were carried down to the ınd floor, the first-floor girders being nected to the shafts at middle height clips, as shown in Fig. 4.

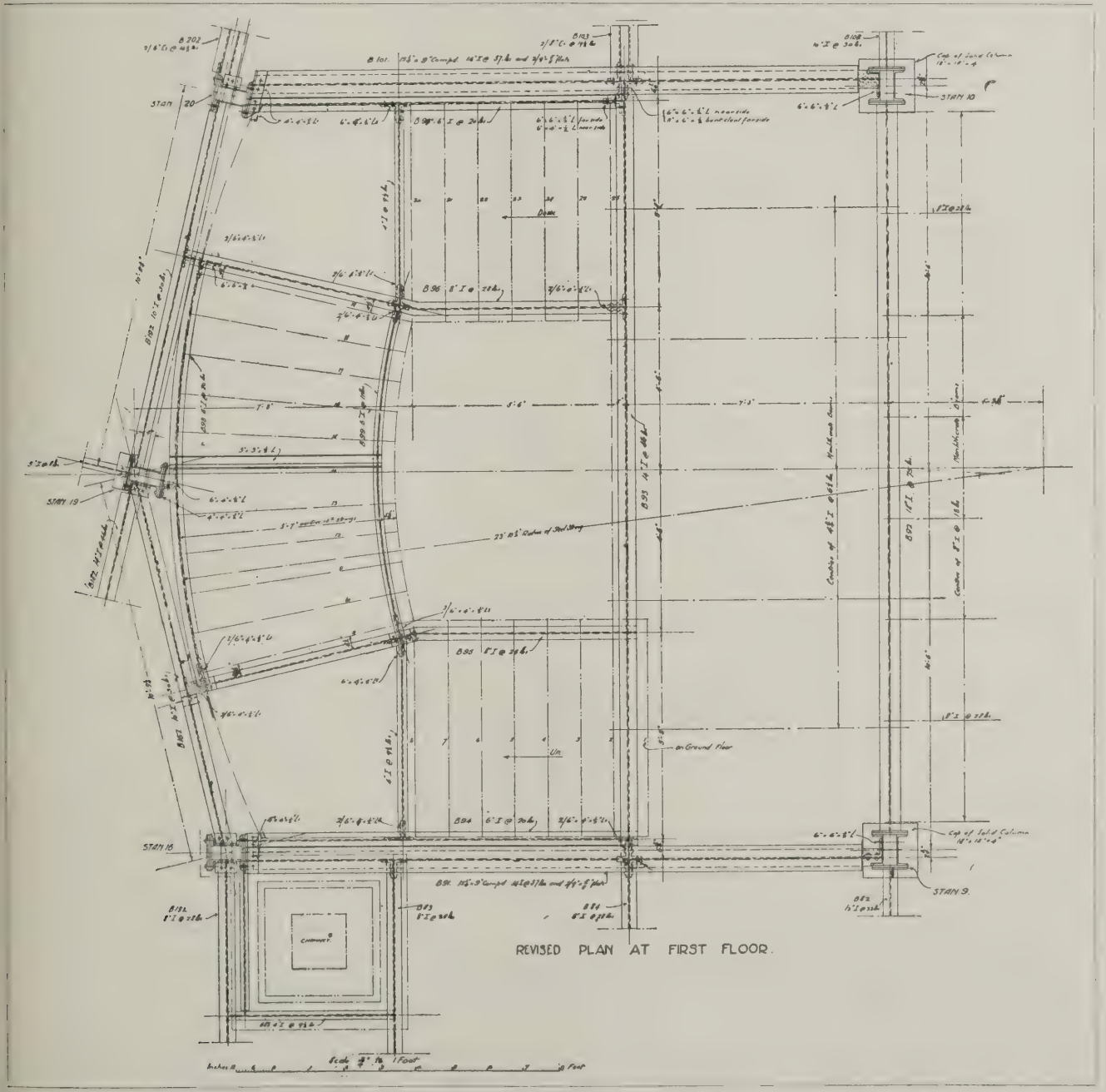
he intermediate floors, except for the that the main girders are kept llow to allow of the passage of ventting ducts beneath them, are of little rest. The plate girder shown on one he accompanying drawings was neces- to meet a change in the window arrangement at the third floor in the central area. The stancheons mark the positions of piers above and below the girder.

The main staircase, with its curved flights between the landings, presented a few difficulties in getting efficient connections for small sections without damaging the sections by large notches and in avoiding expense. Fig. 5 shows this staircase in plan at first floor. In consequence of the bent form of the stringers on plan, connections had to be stiff to take up the resulting twisting action.

The rooms in the front roof on the fifth and sixth floors are undivided, and in order to secure an unobstructed floor space the dormers are large, and no stancheon or posts under the principal rafters were allowed. It was necessary to carry the outer edge of the sixth floor on the rafters. This load, in addition to the whole of the roof-covering for two floors, made the rafters of rather heavy section, an expense which was counterbalanced by simplicity of design and increased accommodation (see Fig. 6).

In the back roof (Fig. 6 applies to back roof) it was possible to place posts under the principal rafters at points covered by vertical walls in the stepped roof, and the roof and floors are balanced on these posts. Ranges of lavatories, etc., are accommodated under the sloping portion of the roof, the connecting corridor being against the interior stancheons.

Messrs. E. C. and J. Keay supplied the steelwork, and the floors throughout the building are constructed on Messrs. Fawcett's Monlithcrete System. The first portion of the building was carried out by Messrs. Holloway Bros., and the superstructure by Messrs. P. and W. Anderson.



STEELWORK IN A MODERN CITY OFFICE BUILDING: 5.—DETAILS OF MAIN STAIRCASE.

The Outlook for Architecture and Building

Mr. John C. Proctor, M.C., A.R.I.B.A., in the course of his presidential address to the Leeds and West Yorkshire Architectural Association, said that the pursuit of architecture was perhaps one of the most delightful ways of walking through life, but many of those who were never warned had discovered that to enjoy it to the full, and practise it in its highest and best forms, demanded a position secure from the necessity of mere money-making. Proceeding, he said : With us architects, as with farmers, the times are usually bad. Harping back to the past presidential addresses, one cannot fail to notice that at the dates at which they were uttered, the preceding year had nearly always been a bad one. Likewise, I notice that in most cases our past presidents prophesied a rosy future for our profession. Then another year would pass, and a new president would report the bad year that had gone, and predict the good ones that were in store.

Perhaps architects and farmers are not the only members of the community who imagine great things of the times to come, feeling that they cannot be worse than those which have gone or in which we are living. At any rate, it is usually the custom in presidential addresses to this and other societies, and indeed in almost all public utterances, to make a point of saying that "All is well with us." This is not only the most comfortable, but the easiest method to adopt. On reviewing the past year, and the outlook for the years to come, I find it hard to follow the optimism of my predecessors. I think I can safely state that the past year has been exceedingly barren from the architect's point of view. I cannot so wholeheartedly follow them in predicting good times to come.

I suppose there are two main reasons for stagnation in the building trade, which equally means stagnation in our profession. The first is a great shortage of capital available for building ventures, and this, I feel, is the reason acting most potently against any revival in building. It is a situation impossible for us as architects to combat. We can only watch and hope for better times. The second reason for this stagnation is more tangible, namely, the lack of confidence of the building public in the stability of prevailing prices. Here, I think we can do something in the way of useful propaganda. Shortly after the war, the cost of building became anything between three and four times the pre-war cost, and this enormous increase was not the only penalty which was suffered by our post-war clients. They also had to put up with countless irritating delays and much extremely bad craftsmanship. In a word, while they were paying so much more for their work, they were not getting it so well done as before the war. All these difficulties and drawbacks soon became apparent to the would-be builders, and though many of them have now been obviated, I expect that I am not alone in finding that my prospective clients are still under the impression that building operations are as nearly out of the question as they were two years ago.

It is our business to make the following points public as far as possible :—

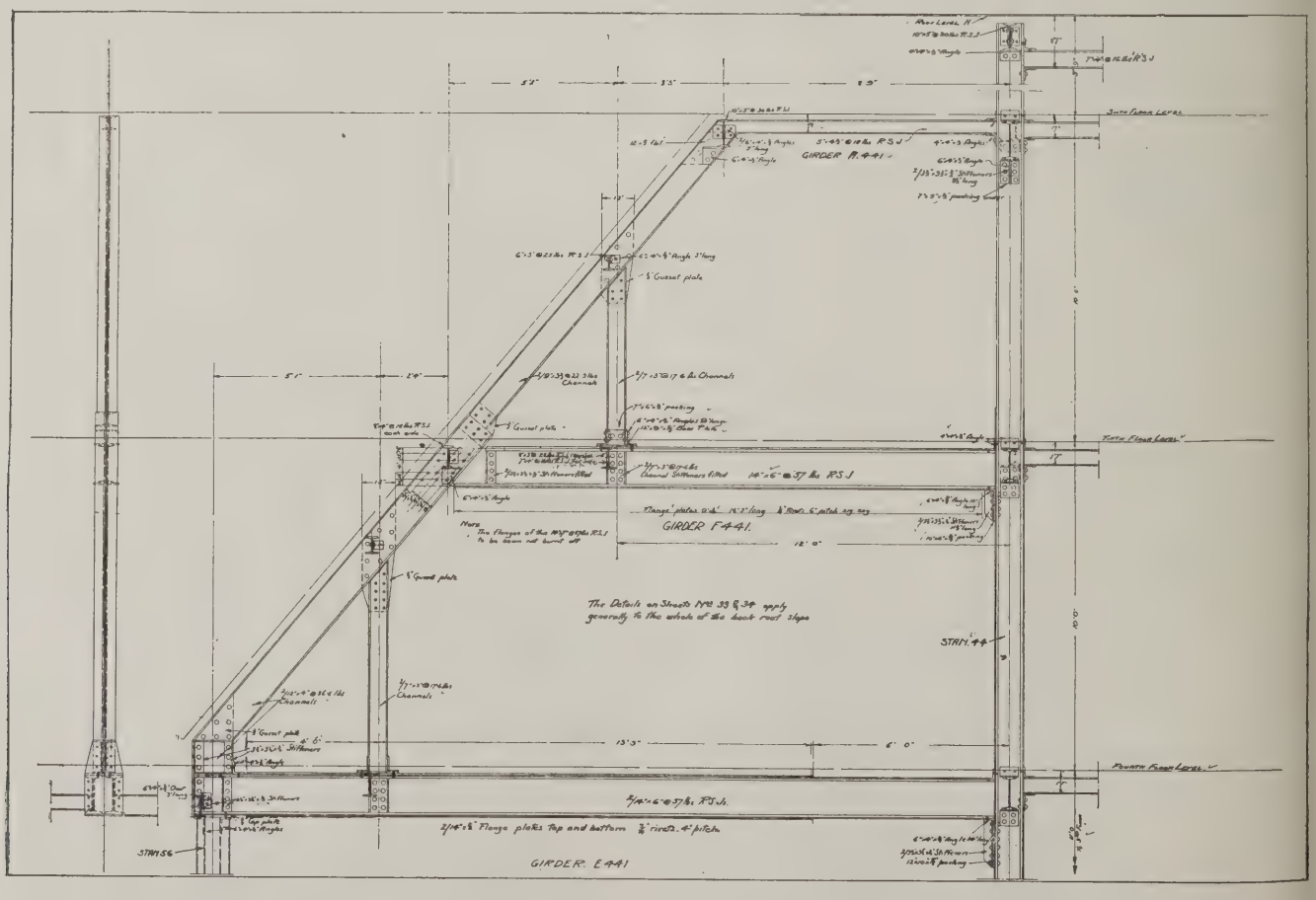
Firstly : The cost of building has fallen very greatly, and in all likelihood by the spring of next year will be in the regi of twice the pre-war cost.

Secondly : That when this level, something near it, is reached, the chanc of any considerable further reduction costs are remote. Hence, those wishi to build may as well carry out the projects next year as later.

Thirdly : The standard of output ar craftsmanship have recently vastly in proved. There are no longer the difficu ties, delays, and petty irritations that the years immediately following the w made many people wish they had nev heard of bricks and mortar.

To use a motoring catchword, t building trade can give us once more good "service" organization, and t thousand-and-one "spare parts" r quired in a building can be supplied, so speak, by return of post. And, to co tinue the motor metaphor, many new a useful "gadgets" are available to t architect which were not on the mark in 1913. It would, therefore, appear th there is no particular reason why peop should not build once more beyond t important one of lack of money.

We are told that the turning-point the general trade depression has be reached. We can but hope that this the case, and that the coming year w see money being made again. It obvious that when this occurs a co siderable amount will find its way in building channels, for, fortunately, arch tecture in many of its forms is, and w remain, a necessity and not merely luxury. The architect in common wi other artists is prone to feel rather i potent even when brought face to fa with the larger financial problems of h art. Unlike the painter, without defini



STEELWORK IN A MODERN CITY OFFICE BUILDING. 6.—DETAILS OF ROOF.

(*See pages* 724 *and* 725.)

nissions, our work must cease, and annot simply add to our stock and for better times.

few months ago I was able to impart life to a room by the simple expe- of installing a fine mantelpiece and ɔd cornice. My client told me after- s that he had never regarded cor- as an important item in decorative nes, and while he was grateful for ıg a room of character in place of an -ordinary one, I could not help ing it was wrong that I should have aste time in persuading a man of ation and culture that so obvious an ation was the right one.

ɔm the beginning of things man has a certain instinct for building, and equently for architecture. At some d of our lives a box of bricks has the most treasured toy of nearly all , and, later on, many whose courses not led them to become either tects or builders still have an in- t for building. But at present the l patron and amateur seems to be st extinct.

is impossible to over-estimate the ntages which would accrue to the art t to mention the practice—of archi- re through a more general knowledge ıppreciation on the part of the public. an enlightened public, many an ity at present perpetrated in brick stone would become impossible, if ıctually an indictable offence, many rror of judgment and taste would r be committed.

Civic Energy

reading a paper on "Civic Energy" e the Birmingham Architectural ciation, Mr. William Haywood, I.B.A., said that the energy neces- to carry out great public works in ast had usually been due to enthusi- following upon successful war, or e policy of rulers who had known the ıological effect of civic enterprise their people. The ancient power of s, however, was now curtailed almost tinction, and recent wars had not led ny great aftermath of energy for ideals, housing and town-planning opments being, of course, due to causes.

was true that something resembling ld order of things showed from time ne. A new Delhi might be created nperial decree, or a new capital city cted, as for Australia. The former, e Imperial act; the latter, the result political compromise, arising from laims of rival cities to metropolitan urs. For the majority of cities of y, however, betterment must come ıgh the ballot box, and it was apt se much of its inspiration in the pro-

The problem varied in different tries; but whether initial action was times assisted by the law as in and, or left to private enterprise as ne United States, there was dis- ıgement for the promoters of civic rment at every step.

ese difficulties were sometimes dis- ted when an authority was given a hand by a trusting or an apathetic nunity, but they were far more often ased by the lethargy of everyone rned; and in most cases the amount vic improvement effected would be in t proportion to the civic energy which could be aroused in the general public by educational means. Practically all attempts at civic improvement arrived at a point where they must be supported by public opinion or come to nothing, and it was because Birmingham and similar cities must before long face great civic demands that he wanted to show by records established elsewhere the kind of effort required of all citizens who wished to see the towns in which they live intelligently developed.

After referring to Düsseldorf—a typical example of work already accomplished by civic energy—Mr. Haywood dealt with Chicago, and said that civic development was making most progress where it was in the hands of people with no time or money to waste. Such development was a business proposition, requiring first the work of fine civic dreamers, and subsequently the achievement of that most difficult of all operations, the awakening of public interest in a new cause, and the raising of public purpose to the level of definite action. In conclusion he said: I dwell upon this latter aspect of the problem because it is usually the least regarded, and it is the most difficult as matters stand to-day. The time is coming when civics and citizenship will be taught in our elementary schools in place of other far less important and less interesting subjects. Such instruction will inform the average member of a community what kind and quality of public service he should stand for, the duties as well as the rights of man; and when our children have been trained in this knowledge, and come to an age when it can be applied, the task of the civic reformer will be relieved of its heaviest burden.

In the meantime, the far more difficult operation of arousing the adult remains the heaviest task in civic betterment, and it is necessary that those who look for improvement in their own environment, on a scale at all commensurate with the works already achieved elsewhere, should realize the extent and kind of labour which is necessary in order to bring such dreams to fruition. This work calls for the united efforts of our best citizens, its effects are endless, and in all directions it makes for good. It will bring to everyone those joys which are so possible in communities and which are so difficult or impossible for many individuals in their private environment; it is a work to make life worth living, largely because it aims at a maximum efficiency in all things; and because it makes for efficiency it should have the active support of all practical business men. It is indeed the chief lesson of the record I have given you, that the publicity and propaganda phase of civic development falls naturally to the business elements of the community to carry out. It is the dogged persistence of the commercial people of Chicago which has made the great improvement of their environment possible, and it is this persistence for such a purpose that makes the best example I can offer of civic energy.

At the conclusion of the paper, a vote of thanks to the lecturer was proposed by Mr. F. H. C. Wiltshire, the Town Clerk of Birmingham, and seconded by Mr. Harrison Barrow. Mr. H. T. Buckland, F.R.I.B.A., the president, occupied the chair.

Law Reports

Builder and Housing Subsidy

Gladstone v. Thomson.

Nov. 23. Official Referees Court.
Before Mr. Pollock.

In this case Mr. Percy Wm. Gladstone, of 39 High Street, Wimbledon, sought to recover from Mrs. Harriet Anne Thomson, widow, of Lyoth, Kingsmead Avenue, Worcester Park, Surrey, the sum of £440, balance of the amount of his charges as a builder for work done and materials supplied in respect of the erection of two houses in Kingsmead Avenue, Worcester Park.

The plaintiff's case was that on December 12, 1919, a contract was made partly verbal and partly by letter for the erection of the two houses for the sum of £1,800. Alternatively plaintiff said that by an agreement made verbally and by letter in 1920 the defendant, in consideration of plaintiff doing the work and supplying the material, agreed that plaintiff should be paid a sum equal to the sum payable by way of grant from the Ministry of Health in respect of the two houses under the Town Planning Act, 1919, and the Housing (Additional Powers) Act, 1919. The sum so payable in respect of the two houses was £320, and defendant had neglected to pay that sum or any part of it to the plaintiff.

The evidence showed that the defendant had ordered numerous extras. The houses were wired for electric lighting, but as the cable could not be put down at once defendant directed that they should be fitted for gas. Another extra was that 130 ft. of superficial drainage had to be constructed in order to carry off the surface water, and additional fencing had to be put up.

The plaintiff said that at the time the contract was entered into he knew nothing of the subsidy, and when he did hear of it he said that if he did get it he would allow the amount off the charges for extras.

The defendant denied that there was any undertaking to pay over the subsidy or to pay for any extras.

The Official Referee, after hearing evidence on both sides, found for the plaintiff for £388 1s., deducting from the claim the charge for drainage, the necessity for which he said plaintiff must have known when he made the contract. As regards the subsidy from the Ministry of Health, he made an order that it should be paid over to plaintiff in satisfaction with the consent of defendant.

Light and Air Dispute

Pritchard v. The Universal Car Co., Ltd.

Chancery Division.
Before Mr. Justice P. O. Lawrence.

This was an action by John Pritchard, of Holmwood, Leicester Road, Loughborough, for an injunction restraining the Universal Car Co., of Foundry Square, Leicester, from interference with light and air to his premises in Biggin Street, Loughborough.

Plaintiff alleged that the Victory Picture House, built by defendants in Biggin Street opposite his factory, interfered with the light formerly admitted by windows, and that he had as a result to burn electric light in the day time.

Defendants admitted plaintiff's ancient lights, but denied any interference such as would be actionable.

Evidence was given for plaintiff that men working machines now had to use artificial light during practically all day.

Evidence on behalf of the plaintiff was given by Mr. F. C. Haynes, of Messrs. A. E. King & Co., architects and surveyors, Loughborough. Mr. T. H. Thorpe, F.R.I.B.A., architect and surveyor, of Derby, Mr. Maurice T. Woolley, of Messrs. Woolleys and Noel, land agents and surveyors, of Loughborough and Leicester, and Mr. T. B. Garton, of Messrs. Garton and Woolley, auctioneers and surveyors, of Loughborough, as to the extent and amount of the damage.

After evidence for the defence it was announced that a settlement had been reached, it being agreed that plaintiff should have judgment for £400 and costs, all proceedings to be stayed, defendants to have an unrestricted right of way to their property and £10 in Court to be returned to defendants.

This agreement settles all the points in dispute between the parties.

Mr. Wm. Woodward, F.R.I.B.A., architect and surveyor, of Messrs. Wm. Woodward and Sons, Mr. J. J. S. Naylor, F.R.I.B.A., architect and surveyor, and Mr. A. E. Bullock, A.R.I.B.A., of Messrs. Bullock and Jeeves, all of London, were retained as expert witnesses on behalf of the Universal Car Co.

Competition Awards

Watford and District Peace Memorial Hospital.

The Committee have adopted the following award of the assessor, Mr. William A. Pite, F.R.I.B.A., in the Watford and District Peace Memorial Hospital: First, No. 9, Mr. Wallace Marchment, Licentiate R.I.B.A. (premium £100); second, No. 5, Mr. Alan E. Munby, M.A., F.R.I.B.A. (premium £75); third, No. 8, Messrs. H. V. Ashley and Winton Newman, FF.R.I.B.A. (premium £50). The whole of the designs will be on view at the galleries of the R.I.B.A. from December 29 to January 3, 1922. We hope to illustrate the winning design next week.

Birmingham War Memorial.

Sir Reginald Blomfield, R.A., the assessor, has made the following awards in the Birmingham War Memorial Competition: First premium (£500), S. N. Cooke, F.R.I.B.A., and W. N. Twist, F.R.I.B.A., Queen's College, Paradise Street, Birmingham; second premium (£300), Edwin F. Reynolds, F.R.I.B.A., King's Court, 117 Colmore Row, Birmingham; third premium (£200), Messrs. Underhill and Hobbiss, 33 Newhall Street, Birmingham.

Labour-Saving House Competition.

The following gentlemen have consented to act as assessors in "The Daily Mail" Labour-saving house competition: Messrs. Guy Dawber, vice-president of the R.I.B.A., R. W. James, M.I.M.E., A.M.I.C.E., and Bertram Parkes, architect. Hundreds of entries have been received in the competition, which closed on November 30. Prizes of £300, £125, and £75 are offered. A house to the plans of the winning design will be erected at Welwyn Garden City, and a model shown at Olympia during "The Daily Mail" Ideal Home Exhibition.

Greenock War Memorial.

Following are the names of successful architects in the preliminary competition for the Greenock War Memorial:—

John S. McKay, 80 Finlay Drive, Dennistoun, Glasgow; Traylen, Lenton and Warwick, 30 Queen Street, Peterborough; Wright and Wylie, 212 Bath Street, Glasgow; James Lindsay, 248 West George Street, Glasgow; A. Hamilton Scott, 103 Stevenson Drive, Shawlands, Glasgow; and Benno Schotz, 79 West Regent Street, Glasgow.

Association of Builders' Foremen's Annual Dinner

The annual dinner of the Association of Builders' Foremen and Clerks of Works, held at the Holborn Restaurant, was attended by some 450 members and their friends. The chair was occupied by Mr. Sidney Gluckstein, of Bovis Ltd., and among those present were Professor A. E. Richardson, F.R.I.B.A., Messrs. Frank Brighten, Ben Carter, Rowland Chessum, S. I. Gluckstein, and J. H. Roof, and Messrs. Dexter and Meyer (president and secretary respectively of the National Federation of Clerks of Works and Builders' Foremen).

Mr. Sidney Gluckstein, in proposing "The Association of Builders' Foremen and Clerks of Works," said that the association, which was established in 1894, was a healthy and rapidly growing one, and that it was now federated with similar associations in London, Birmingham, Bristol, South Wales, and Scotland. Mr. Mitchell, the president, replied.

Mr. S. I. Gluckstein, proposing the toast of "The Building Trades" (to wh Mr. Rowland Chessum replied), s that he was certain that the pres slump in trade would shortly be ov come, but that the co-operation employer and employed was the o means to ensure that end.

The toast of "The Architects a Surveyors" was proposed by Mr. S. Joseph, and responded to by Profes Richardson, who paid tribute to the h rendered to architects by the forem and clerk of works, in the intellig interpretation of their wishes.

Mr. Harsant (vice-president) propos the health of "The Visitors," to which Frank Brighten replied, after which Ben Carter proposed the health of t chairman.

During the evening the following w was sent to Princess Mary:—

"To H.R.H. Princess Mary, Buckin ham Palace.

"The Association of Builders' Forem and Clerks of Works by Sidney Gluc stein Chairman with 450 guests assembl at the Holborn Restaurant tender th sincere congratulations on your betrot and earnest wishes for a long and hap wedded life."

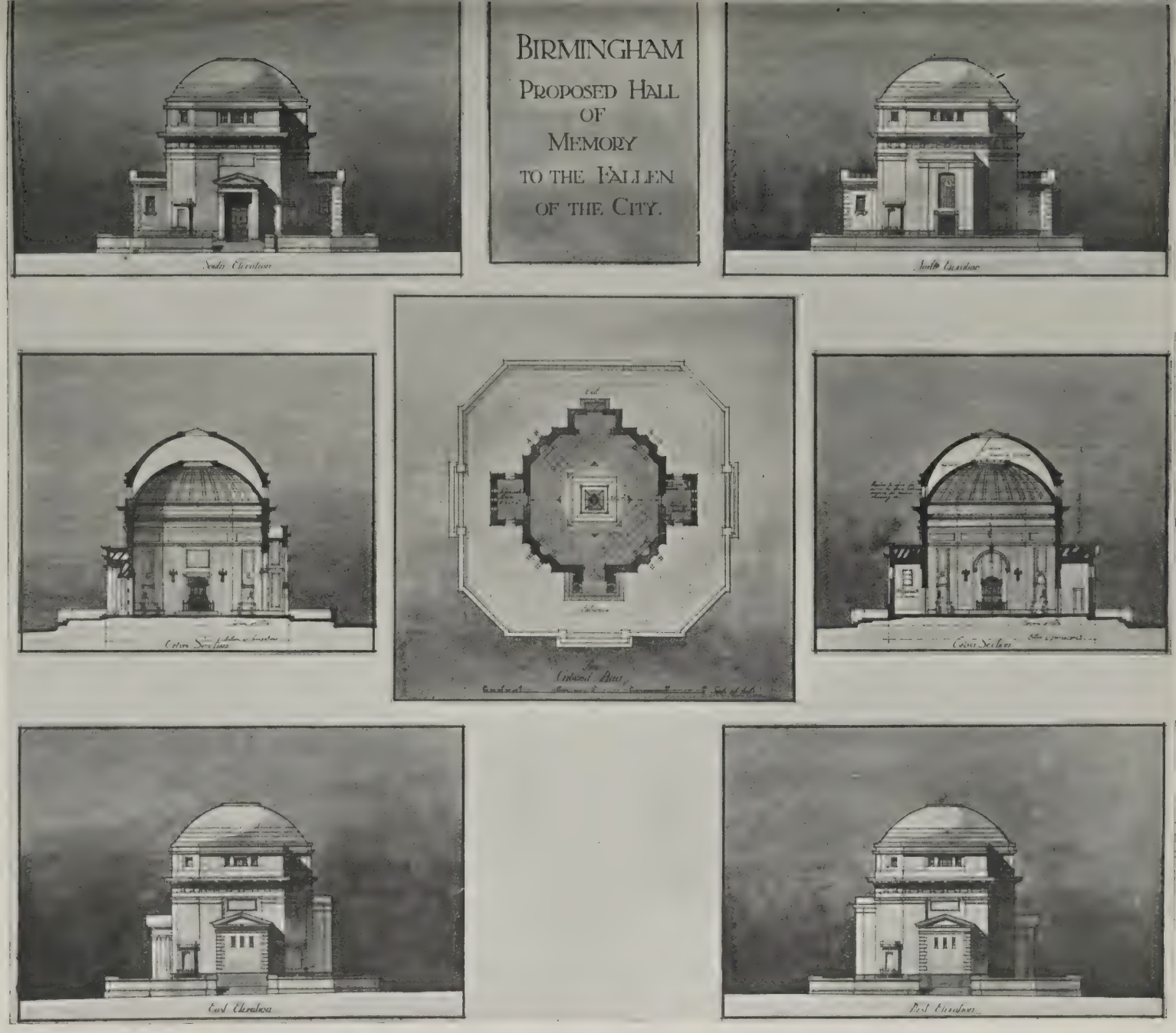
Princess Mary's reply was as follows

"To Mr. Sidney Gluckstein, Bovis Lt Upper Berkeley Street, W.1.

"Please convey to Members of t Association Princess Mary's warm thanks for your good wishes, which s much appreciates. — Dorothy Yor Lady in Waiting."



BIRMINGHAM HALL OF MEMORY COMPETITION. FIRST PREMIATED DESIGN. S. N. COOKE AND W. N. TWIST, FF.R.I.B.A., ARCHITECTS.



BIRMINGHAM HALL OF MEMORY COMPETITION: FIRST PREMIATED DESIGN. S. N. COOKE AND W. N. TWIST, FF.R.I.B.A., ARCHITECTS.

Modern Fire Fighting

Among the destructive agencies against which architects are perpetually at war, fire is undoubtedly the most devastating and immediate in its effects. Although skilful planning and the employment of fire-resisting materials tend to reduce the risk, the scourge, nevertheless, exacts an annual toll of hundreds of lives and many millions in money. While, however, the question of protecting buildings from the ravages of fire is one which should always engage the architect's most serious attention, any means by which he may be assisted to approach the problem scientifically and systematically must of necessity have beneficial results of a widespread character.

One of several aspects of the subject which have in late years undergone exhaustive investigation is that of thorough preparedness to arrest the progress of a fire at the outset. Experience shows that the most likely method of securing this end is to install such appliances as are best calculated to meet the varying kinds of risks to which the premises may become subjected. This principle demands that the selection of the apparatus should depend entirely upon the nature of the work it is to accomplish. As every fire produces varying conditions, these must be met by appliances which have been expressly designed and constructed to cope with them. In short, fire protection which is suitable for one type of building or business may be totally inadequate to meet the hazards of another.

It follows that if the installation is to effect the maximum degree of protection, care as well as knowledge must be exercised in specifying the number, position, and type of the fire-extinguishing appliances comprised in it. Valuable advice on this and many other points relating to the subject of fire extinction will be found in the handbook entitled "Modern Fire Fighting," which has been recently issued by the Pyrene Co., Ltd., 9 Grosvenor Gardens, S.W.1. It has been specially written for the information of architects, and contains practical suggestions for the prevention of fire, a résumé of the various methods employed for its extinction, a table of insurance rebates granted for different classes of fire equipment, an annotated and illustrated list of fire-fighting devices, as well as details of the Pyrene advisory fire engineering service. The latter, it may be mentioned, is entirely free, and is a scheme by which the technical knowledge of the company's experts is placed at the disposal of any architect who desires to avail himself of it. Included among the gratuitous services thus rendered are the carrying out of fire surveys, and the preparation of reports on the particular risks involved, which data enable the company's engineers to co-operate with architects in devising complete schemes of fire protection for buildings of any description. Advice of this character would appear to be particularly advantageous in cases where the structure is in course of erection.

The company's specialities cover a very wide range of equipment, and embrace apparatus designed to cope with every kind of hazard, from fire buckets to chemical fire engines capable of discharging a stream of fire-fighting liquid a distance of 60 ft.

Particular mention may be made of a small hand-extinguisher—weighing but six pounds—of improved pump action, which is charged with a special fluid known as Pyrene liquid, and is effective on all kinds of fires in their incipient stage. In action it generates a heavy, dry, and non-poisonous vapour "blanket," which separates the flames from the burning material, and cuts off the air supply necessary for combustion. It is claimed for it that it is especially efficient in the case of fires involving highly inflammable substances, and that being a non-conductor of electricity, it can be safely used on electrical short circuits. The Fire Offices Committee has approved the pump-type extinguisher just referred to, in combination with the "soda-and-acid" fire extinguishers, and it is this recognition which entitles the person adopting a combined installation of this nature to recover a substantial yearly rebate on his fire insurance premiums.

London Master Builders' Association Dinner

The annual dinner of The London Master Builders' Association was held under the chairmanship of Mr. S. M. Burt, the president, at the Hotel Victoria, on Thursday last.

Mr. Roland B. Chessum, in proposing the Architects and Surveyors, said that the builders had called a conference on the new form of contract, and some progress had been made along the right lines.

Mr. Paul Waterhouse, P.R.I.B.A., replied in a humorous speech, and said, with reference to the form of contract, that his experience of dealings with builders had been so happy that he was prepared to work on any old form of contract. Mr. Harry England replied for the surveyors.

Mr. Henry T. Holloway proposed "The National Federation of Building Trades Employers." He emphasized the importance of that body and the desirability of all builders becoming federated. He also referred to the good work of Mr. A. J. Forsdike as president.

Mr. A. J. Forsdike, in response, also dwelt upon the importance of the Federation, which now had 13,000 members and comprised 305 local associations.

Sir Frank Baines, in proposing the toast of "The London Master Builders' Association," referred to national housing, which, he said, would probably have been more adequately carried out if the great contractors of this country had been called into consultation and asked for their advice and assistance. He contended that the building industry was controlled in many districts to-day by by-laws which were entirely out of date and inimical to its successful operation, and he advocated, as a general working principle, in regard to the industry as a whole, closer co-operation between architect and contractor.

The chairman, in responding, referred to his recent visit to the United States, where he found that the master builders' problems were somewhat similar to our own. In one respect, at least, they had an advantage as compared with master builders in this country—they were not handicapped by prejudice against the introduction of new methods, and if a contractor found a new and better way of doing some section of his work he w not harassed by a clerk of works pointi out that the specifications did not perm it to be done that way.

Mr. F. J. Gayer proposed the Visito to which Sir Charles Ruthen responded.

House Builders and Me chants' Rings

A conference of builders and othe interested in house-building by priva enterprise was held last Thursday at t Caxton Hall, Westminster, to consid various aspects of the house-buildi problem.

Mr. A. G. Shearing moved a resolutic declaring that one of the main contrib tory causes of the delay in the resumptic of building by private enterprise was t excessive cost of materials, and that t trusts and combines which now controlle the production of building materials we largely responsible for the continued hig prices. These trusts and combines we brought about by the action of builder merchants, and embraced something lik 95 per cent. of the building-trade bus nesses. The building industry could n rise again until this tyranny was declare illegal.

The resolution was agreed to.

Mr. Q. Waddington (Sheffield), pas president of the Federation of Hous builders, moved a resolution urging t Government to adopt the recommend tion of the Committee on High Cost Building Working-class Dwellings, an to empower the local authorities to ent into arrangements with the house-build to build working-class dwellings on lan now held by the local authority.

The chairman remarked that the gre fall in prices which had taken place in t last twelve months was due to the Gover ment taking its control off the purchasin of material. He believed that hous would never again be built, especially i the Metropolitan area, at less than 10 or 10½d. per cubic foot. At preser houses could be built at 1s. a cubic foot.

The Mediæval Mason

Mr. J. E. Barton, M.A., lecturing o "The Art of the Mediæval Mason before the Bristol Society of Architect claimed for the English mediæval maso a distinctive originality not only in co struction and design, but also in the fi executive gifts that marked the individu workman. In the English developmer of the vaulting problem were show æsthetic as well as practical qualities the highest order. English churches the great age lacked the audacious heigh triple portals and assembled statuary the major French cathedrals, but f excelled these in quality and variety mouldings, bay design, richness of arca detail, and, not least, in foliage sculptur Our finest mediæval art, so far from bein feverish, as callow students of the midd ages often stated, was severe and r strained like the works of ancient Greec though, of course, with a new spiritu colour. A hearty vote of thanks to t lecturer was proposed by Mr. Graha C. Awdry, F.R.I.B.A., and seconded b Mr. E. H. Button. Mr. G. S. Lawrenc A.R.I.B.A., the president, occupied t chair.

The Dickins and Jones Building, Regent Street: Progress Photographs Nos. 10 & 11



November 11th, 1921.



Higgs & Hill, Ltd., Builders

November 14th, 1921.

The above photographs are published by courteous permission of the architects, Messrs. Henry Tanner, FF.R.I.B.A. Between November 11th and November 14th the whole of the temporary footways and showcases were removed, pavements made good, and the permanent shop windows were opened to the public, as well as the ground-floor showrooms.

The Week's News

Manchester Housing.

The City Council are considering a proposal to advance 65 per cent. of the cost of houses which do not cost more than £500 each.

Northern Satellite Towns.

Professor Patrick Abercrombie, of Liverpool University, has prepared regional plans for South Lancashire and for the South Yorkshire coalfields round Doncaster.

New Glass Works for Chesterfield.

Chesterfield Highways Committee have approved plans for new glass works at Whittington, in connection with the new electric lamp factory which the British Thomson-Houston Company are erecting.

The Stanton Chantry.

The photograph of the Stanton Chantry, St. Alban's, Holborn, reproduced on page 419 of our issue for October 5, 1921, was taken by Mr. Roland Huth. We regret that this acknowledgment was omitted from the reproduction.

Proposed New Cinema, Bury.

A printed letter has been received by the Secretary of the Society of Architects stating that, in consequence of a communication received from the Society, the directors have decided to withdraw the competition.

Cork Harbour Development.

Cork Harbour Commissioners propose to undertake a big scheme for the development of the port at a cost of a million pounds, and have decided to appoint an American engineer to consult with their own engineer.

Housing at Blackpool.

Nearly 200 houses have been completed and tenanted under the municipal housing scheme at Blackpool. The three housing schemes which are in progress are finding employment for over 800 workmen.

Sheffield Cathedral.

The Cathedral General Committee has accepted one of the three plans laid before them by Sir Charles Nicholson. The scheme provides for a generous extension of the present building, including the building of a great nave and a high choir.

Society of Architects' Council Vacancy.

To fill a vacancy caused by the election of Major Skipper, F.R.I.B.A., as a Vice-President of the Society of Architects the Council have decided to co-opt Mr. H. A. Cooper, F.R.I.B.A., of Kettering, for the remainder of the term of office vacated by Major Skipper.

Ventilation of Blackwall Tunnel.

The Highways Committee of the London County Council report that the engineer has prepared a scheme for the ventilation of Blackwall Tunnel at an estimated cost of £7,000, and they recommend that the work should be proceeded with.

The Architectural Association Conversazione.

The Architectural Association held their annual conversazione and dance at their headquarters in Bedford Square on Friday night. The guests were received by Mr. W. G. Newton, M.C., M.A., and there were on exhibition modern tiles and pottery fabrics by Latham Francis, members' holiday sketches and photographs, and students' work.

A Correction.

In our issue for November 30 we stated that Mr. R. F. Clark had been elected president of the National Federation of Associated Paint, Colour, and Varnish Manufacturers. This, we are informed, is incorrect. The office to which Mr. Clark was elected should have been given as chairman of the London Association of Paint, Colour, and Varnish Manufacturers.

London Library Extension.

London Library, St. James's Square, London, has been enlarged from the designs of Mr. Osborn Smith, architect. Seven new floors, providing for an additional 200,000 volumes, have been added. The shelving is of steel, and the floors of thick glass. Mr. Osborn Smith carried out the entire reconstruction of the library building a quarter of a century ago.

R.A. Prize Distribution.

The annual distribution of prizes to students of the Royal Academy Schools took place on Saturday last. This was the first of the biennial awards of Gold Medals and Travelling Studentships to be held since the war, and the President, Sir Aston Webb, after announcing the awards and distributing the prizes, delivered a discourse to the students, such as is usual on these occasions.

Building in Constantinople.

Building societies and private enterprise are displaying great activity, and large houses are being erected in all parts of Constantinople. A law has been passed to forbid the construction of wooden houses, or those of wood exterior, with the result that there is a great demand for building stones and bricks. Particulars with regard to the projects in hand, and the local prices and production and the imports of the various classes of materials, may be obtained by any United Kingdom firms interested on application to the Department of Overseas Trade, 35 Old Queen Street, Westminster, S.W.1, quoting the reference 6531/FE/PN.

A. and S.A.P.U.

The Council of the Society of Architects has decided to support the Architects and Surveyors' Assistants Professional Union in its representations to the Ministry of Health in regard to the employment of architects' assistants on the plans of public relief works, and has also agreed to co-operate in a conference should one be arranged on the subject of the prevention of over-crowding in the architectural and surveying professions.

Loans from National Saving Certificates.

In a circular, No. 263, just issued, Ministry of Health lay down the pro dure to be adopted by local authori in applying for loans from the proce of sales of National Saving Certifica Subject to certain conditions, one half the money raised by the sale of the cer cates will be available for housing, a the other half for any purposes for wh the Public Works Loan Commission have power to sanction loans. Appli tions for loans should be made to Secretary, Public Works Loan Boa Old Jewry, London, E.C.2.

Bungalows for French West Africa.

In Dakar French Senegal there likely to be a limited demand for fo roomed wooden dismountable bungalo in sections, and ready to put togeth They should be cheap, of well-seaso timber, roofed with corrugated iron, a consist of about four rooms, 12 ft. 12 ft., or 12 ft. by 14 ft., surrounded a small verandah, and should have, addition, a bathroom and a kitch pantry also on the verandah. Fir interested are invited to forward pr lists and illustrations to the Brit Consul-General at Dakar.

Housing Progress in Scotland.

The following figures show the progr that has been made in the State-aid housing schemes in Scotland up to Octo 31, 1921: permanent houses complet 3,376; temporary houses completed, 6 reconstructed houses completed, 6 houses built under the private subsi scheme, 1,012. Total, 5,059. In ad tion, there are 14,233 houses under co struction, of which 2,170 are being bu with the aid of the Government subsi to private persons. The total amou paid out by the Scottish Board of Hea in respect of the 1,012 houses co pleted under the subsidy schemes £244,976 13s. 4d.

Unemployment Relief Works.

In a circular just issued the Unemplo ment Grants Committee draw the atte tion of local authorities to the Gover ment decisions with regard to the reduc rate of wages to be paid to unskill labour in connection with State-aid relief works. According to the circul the reduced rate of 75 per cent. does n apply to skilled men, including "trad men" employed in their trade, and pr perly qualified navvies. In cases whe the men are employed for not more th three days in the week the reduced ra applicable should not exceed 87½ p cent. instead of 75 per cent. In co sidering the probationary period, it h been decided that such period may inclu the time during which the men have be employed on Government assisted wor under previous schemes. The reduc rate (for the probationary period) shou be calculated to the nearest farthing p hour. The circular may be obtain from H.M. Stationery Office or throug newsagents.

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THE ARCHITECTS' JOURNAL & Architectural Engineer

With which is incorporated "The Builders' Journal"



ALFRED WATERHOUSE, R.A. (1830–1905)

Alfred Waterhouse first came into public notice as the successful architect in the competition for the Manchester Assize Courts, which was closely followed by the erection of the large gaol at the rear. Then came the well-known design for the Natural History Museum, which must be considered as his most original achievement. Practically at the same time as the museum was being built, Waterhouse had two other important works on hand—Eaton Hall, for the Duke of Westminster, and the Manchester Town Hall. In the case of the latter his brilliant gifts as an architectural planner were displayed to a remarkable degree. It was in connection with the internal decoration of this building that he was brought into intimate relationship with members of the Royal Academy, who elected him an Associate in 1878 and an Academician in 1885. Among his many other important buildings are the National Liberal Club, the Prudential building in Holborn, the City and Guilds Institute in Exhibition Road, University College Hospital, St. Paul's School, Hammersmith, and the Hotel Metropole at Brighton. He was awarded the Royal Gold Medal in 1878, and was President of the Institute from 1888 to 1891.

27-29 Tothill Street, Westminster, S.W.1.

Current Architecture. 136.—New Premises for Messrs. Lilley and Skinner, Ltd., Oxford Street, London

Arthur Sykes, F.R.I.B.A., Architect



This building has been designed to conform with the work of Robert Adam in the adjoining Stratford Place, some part of which had to be demolished to make room for the more commodious premises required by Messrs. Lilley and Skinner. At the angle of the building will be noted the watchman's shelter (part of the original work), which has been converted to the uses of an entrance to the new building.

THE
ARCHITECTS' JOURNAL
27-29 Tothill Street, Westminster, S.W.1.

esday, December 21, 1921 Volume LIV. No. 1407

The Unification of London

BVIOUSLY the larger view is developing swiftly. It seems that we are to have not only higher buildings in London, but a "greater London." It must be admitted, however, that the expression ter London," as recently adopted in the newspapers, altogether happy. "Greater London" was the formerly applied, semi-officially, to the outlying ›s. It is now being freely used to describe an f unification which has been referred to a Royal ission. The idea is a fructification of the Poplar onments. When men and women went to jail test against the inequalities and anomalies of local a fairly intelligent Government suddenly realized heir case was worth inquiry. A Royal Commission ppointed to find out, if possible, what all the was about, and they asked them to report "what, if lterations are needed in the local government of the istrative County of London and the surrounding ts, with a view to securing greater efficiency and ny in the administration of local government ser- and to reducing any inequalities which may exist in stribution of local burdens as between different parts whole area." This portends great and not unneedful es. It should mean unity, simplification, economy, noval of unnecessary barriers to building.

ıay be said, after the manner of Mr. Gilbert Chester- ıat in London there is no local feeling, because there many local authorities; that local government would excellent thing were it not for the local governors. n has had all the local pride smooth-ironed out of He is surrounded and intimidated by hordes of rities—the London County Council, the City Cor- on, twenty-eight borough councils, twenty-eight s of guardians, the Metropolitan Asylums Board, y-six assessment committees, four boards of managers ›ol districts, and one board of a sick asylum district. itness who furnished these details then had to pause :e breath, for there were other little lists to tackle. ıd to break it gently to the Commission that the ›py Londoner has to bear yet other burdens. There the County of London Insurance Committee, the ›n Old Age Pensions Committee and its sub-commit- and the Central (Unemployed) Body also exercise n statutory functions within the area. Here the ss must have again murmured "Selah," and have ered whether his task should not rather have been sted to a Fellow of the Statistical Society, or at least census enumerator; for his already bulky catalogue needs be further inflated by the addition of an appen- The witness had still to recite, with as much elocu- y effect as he could command, the Metropolitan Board, the Port of London Authority, the Thames rvancy Board, and the Lee Conservancy Board—all tory bodies exercising very important functions ı, or at least affecting the administrative County of ›n, not only within, but also outside it, and all having ious maws, which it is the ratepayers' pleasing duty d.

This vast array of institutions, the fruits of a craze for "local self-government" that reached an extravagant pitch some thirty or forty years ago, when it was an electioneering cry repeated parrot-like with monotonous persistency, is ripe for plucking. "Decentralization" may be very fine in theory, but in practice it is attended by many grave disadvantages. It multiplies officers and fees, and incidentally promotes nepotism and jobbery, or at least provides a promising soil in which these noxious weeds could flourish. Every architect, and more particularly every builder, knows how profound a nuisance it is, and how great a hindrance to progress, to have one's steps dogged by a swarm of prying and perquisite-hunting officials. There is no insinuation here of anything illegitimate; the legal pickings are far too plentiful to make corruption worth the risk of reputation and liberty. There is little or no corruption, in spite of abundant facilities for it. What is meant is that the builder is harassed at every turn by some fee-devouring cormorant whose services to the community are largely hypothetical, and are, at all events, much less obvious than his insatiable appetite. Nor are direct and unfailing demands on the builder the only obligations in restraint of trade. All the long string of institutions named by the witness before the commission may be said to take direct or indirect toll in some form inimical to the industry. They make such a drain on the would-be client's pocket that often the project is consequently stinted or abandoned; or, alternatively, the builder is blamed for high prices of which a considerable sum should be debited to heavy fees paid to officials; to pay whom is like dropping coins into an automatic slot-machine: you may or may not get an adequate return, or any return at all, for your money. In a sense, be it remembered, these official fee-takers are, indeed, automatic, and positively a little worse than that; for in the case of the machine the coin you drop in is of constant equivalence, but the inspector, or other official, always seems to have his own notions of what is due to him, and often measures up the amount with a foot-rule, which is about the most idiotic and irritating method of assessment that human imbecility ever devised, except, perhaps, that of assessing the rate to be paid for inhabiting any particular house, for there arbitrariness can go no farther.

By all means let us have "Greater London" if it will put a stop to, or at least mitigate, this old-standing mixture of lunacy and extortion. The architect will breathe more freely, and what is of even more importance, the client will build more freely, if the operation is attended with some degree of certainty as to the incidence and extent of these extraneous and unnecessary charges and arbitrary rating, which ought really to be the subject of inquiry by a separate and specific Royal Commission. It is no less than a scandal that such evil-working processes should go on year after year, victimizing the building industry and restricting enterprise. No doubt the R.I.B.A. has a formidable list of abuses to attack, but this question of the incidence of fees should receive full attention the very moment the proposed unification of London threatens to become a really practical issue.

Notes and Comments

The Cost of Building

A SPEEDY but thorough inquiry into the prices of building materials is strongly advocated by Mr. Henry R. Aldridge, secretary to the National Housing and Town Planning Council. Architects and builders would heartily welcome such an investigation, because an authoritative report on it would show where most of the trouble arises with respect to the high cost of building, and upon whose shoulders the blame should be laid. It is imperative that the culprits, if any, should be exposed, and that innocent traders should be exculpated. For this is an issue of the utmost gravity. It is not merely a question of profiteering. That would be bad enough. Nobody likes to feel that he is paying too much for the goods he buys; but if this were a mere question between buyer and seller, of the one paying and the other gaining a little more or less for the goods, and a hard bargain affecting the one or the other were the only result, the transaction need not be branded as flagitiously immoral. But the multiplication of such transactions is of national importance. Dear building has brought the industry almost to a standstill, has directly or indirectly done incalculable injury to thousands, and has seriously injured national progress and prosperity. It is therefore to be hoped that the real authors of all this widespread mischief will be tracked down and exposed. It is freely alleged that the dealers in certain building supplies have formed powerful rings to keep up prices, and that they exercise a shameless tyranny over any trader who tries to act independently of them. Let a Government investigation prove whether this is sober fact or malicious scandal. One gets tired of hearing it repeated without proof; but once it is proved, let the axe fall without remorse.

An Astute Superstition

A facetious writer in "The Star" avers that "a new superstition is rising with the new shops in Regent Street. Passers-by are becoming more convinced every pass-by that it is unlucky to walk under a working crane," He thinks that "in the presence of an odd ton or so of coping stone, suspended like the sword of Damocles—only much heavier—above their heads," they are justified of their superstition; for "a ton or so of stone, or a steel girder, is apt to leave a nasty bump on the head." "Coping stone" is the only sort known to the newspaper man; who also can never persuade himself that the "sword of Damocles" should nevermore be dragged forth from among the antiquities in the lumber-room.

The City Churches, Again

The menace to the City churches is by no means obsolete. Lord Knutsford has lent fresh stimulus to the utilitarians. In a letter of nearly a column long he lays stress on material needs and slurs over the æsthetic side of the question. He seems to regret the refusal of the patrons of All Hallows, Lombard Street, to sanction the sale of its site for £500,000. "It was built by Wren," he acknowledges, "but evidently a Wren hampered by restrictions, and not the Wren we see in St. Paul's and other beautiful churches. It is approached through a narrow archway, and hidden away behind bank buildings and offices." It is, nevertheless, a work of Wren's, and as such to be revered as a monument if for no other reason. By whose fault was it thus hidden away? Investigation would doubtless show that the persons who thus showed a disposition to barter away a noble heritage were of the same type of mind as those who have so keen an eye to "the main chance" as to allow but little weight, if any, to the argument from æsthetics. Lord Knutsford himself treats this plea rather scornfully. "Of course," he says, "when the report [that of the City of London Churches Commission] appeared, the cry was raised that the commissioners were vandals and that the beauty of the City would be irretrievably destroyed, and so on, and this seems to have alarmed the Church authorities." Less alarmed than convinced, one would like to suppose; their eyes ha ing been opened to things to which they had been previous blind. We are sorry to see so influential an advocate Lord Knutsford using his eloquence on the wrong side the argument. Wren built All Hallows in 1694 on a si formerly occupied by a church dating from Norman time There is some handsome carving in the interior. I Charles Burney, father of the incomparable Fanny, w organist there in 1749.

The House and the Hospital

The discussion of what the newspapers have denominat "the Tragedy of the Hospitals" incidentally raises sor important points with reference to the intimately relat subject of housing. The women of England, Lady Askwi admits, "place a very high value on better housing"; bu she asks, "Do they think they are getting value for t £10,000,000 which the Ministry is spending on housing th year? Are they likely to be pleased with the wasteful a ridiculous schemes which have saddled us with a debt ten million yearly in the next sixty years, and, by elimina ing competition and encouraging every description extravagance, have practically prevented houses from bei built at all?" It is a tremendous indictment; but that it substantially true and "touches the spot" cannot doubted. Lady Askwith, displaying a fine sense of fai ness, acknowledges that Sir Alfred Mond is doing all he ca and that he has a difficult and an ungrateful task wi respect to the starving hospitals. And her conjunctio of the case of the hospitals with the position of the housi questions provokes a reminder to the Ministry of Healt (which seems to be rapidly qualifying as a Ministry Meanness) that the better the housing, the fewer the ho pitals; an adage that is apt to be forgotten at a time whe most of the hospital cases are more visibly consequent o the war than on bad housing, which is nevertheless co tributing its full quota.

Smoke Abatement

The final report of the Committee on Smoke and Noxiou Vapours Abatement is much more positive as to the abus than determinate as to remedies, and is therefore lea helpful where aid was most required. It hardly needed Royal Commission to confirm the fact that coal-smoke really a nuisance, injurious to health and degrading an disfiguring to buildings; but it is certainly useful to hav established beyond dispute a condition that has been fr quently denied, namely, that a large percentage of th smoke in towns comes from the domestic chimney. To hav this fact authoritatively stated is certainly a matter of co siderable importance to the architect, the builder, and th supplies merchant. New means for the more thoroug combustion of coal must be devised, whether or not wha the Royal Commissioners, with amusingly rich but entirel just invective, term "the dirty, wasteful, and unscientif practice" of burning raw coal. They have not the courag however, to propose legislation with regard to privat dwelling-houses. Small blame to them; this being di tinctly an instance in which discretion is the better part valour. *Pro aris et focis* is still a firm tradition, and t attempt to enforce a reform of the open grate would b worse than useless. It would create a riot, if not a rebellio probably conducted with fire-irons. Persuasion is the mo effectual course, and exhortations towards the adoption central heating, gas fires, and electric warmers, will be little avail unless precept is supported by practical demon strations such as we have already seen in plenty at th various housing and building exhibitions, and may expec to see still more abundantly in the future. There is ye room for many more new and ingenious devices, inventio being stimulated thereto by the scathing denunciations, i their report, of the nuisance from smoke and of the primi tive appliances that produce it.

The Fire at the "Printemps"

Some Further Reflections

By H. BARTLE COX, A.R.I.B.A. (of Paris)

N a previous article (October 12) I dealt with the fire as a current event. It will now be technically instructive, in the light of further investigation, to consider it from a practical point of view.

English administrative authorities, engineers, and architects have alike made enquiries concerning the catastrophe, the real lesson will not be learnt until the official rts are made public, before the insurance companies e had their say, until the management has decided n the modifications to be observed in the reconstruc-

es Nouveaux Magasins are still in a deplorable state of , but dangerous parts are being shored up and a ring of the ground is in progress. It is hoped that the nises will be entirely repaired in about two or three 's' time.

he principal technicians and authorities involved, urally very reticent, have been interviewed by the ior, who is brought to the following useful and logical clusions touching fires in "any large establishment," : Prevention is better than cure, but once a fire has ken out the first consideration is to minimize its damage, ch can only be effected by an efficient service on the of the public firemen, materially aided by previously nized assistance from the owners of the property.

ll investigations and witnesses' evidence should be le public, for experts can be found to prove anything. examining magistrate should be invested with the ers of exacting that all inquiries be thrashed out in the n court. All possibilities of the really responsible per- screening himself should be reduced to the minimum.

"Protect the Goods"

he loss of life by fire is often caused more by panic n by burning. The loss of property is often more a stion of damage by falling structures than by actual tion. The weak points of a structure are generally in joints or in the union of the floors and walls, etc. ds burn and the building falls. To protect the goods ne secret of preventing fires. With reference to panics, e efficient method of mobilization of the staff is to be anized, coupled with a well thought-out disposition of passages, staircases, and exits for new buildings. A dern building scarcely ever burns, but the ignition of ammable contents generates heat. As nothing is proof inst fire, care should be taken that the main structural ts of a building be not subjected, even in the case of , to a high temperature. If a part of a building is un- idably liable in the case of fire to be subjected to intense t, that part of the building should, as far as possible, be oved from the area of the main structural supports.

n buildings made specially for the storing of goods, steel ning, if used, should be protected. The loss of life is re serious than the loss of property; consequently, in ldings frequented by crowds all inflammable stores not olutely necessary for carrying on the immediate business uld be relegated to a place not accessible to the public.

The management of the "Printemps," it may be supposed, is desirous of preventing further outbreaks of a ious nature. The architect of the establishment, Monsieur Wybo, is now in America, shortly to be joined by nsieur Laguionie, the managing director, with a view, sumably, to studying the question of the construction, anization, and design of large stores.

From a business point of view, it is obvious that for a npetitive shopping centre, art is as important a factor of de as science. The artistic design of this shop was, perhaps, the most successful of its kind in the world. The architectural handling of the commercial problem undoubtedly contributed in a large measure to its universal renown. Putting all questions of faulty construction and foul play on one side, it is doubtful whether a building which is uninviting in appearance by reason of being studied solely from a fire-preventing standpoint, is in the end more remunerative than a well-built attractive structure where certain small but unimportant risks of disfigurement might be run. The reconstruction of the "Printemps" will probably be the harmonious combination of the two ideas.

Present Condition of the Building

The damage of these premises, though great, was by no means so vast as was at first supposed by the public. Many of the reports circulated were highly imaginative. The writer, after visiting the entire premises, is able to state from personal observation that a great portion is untouched, and others reparable, though much is completely destroyed. On the day of the fire there was a slight breeze blowing westwards, which probably helped in the saving of the eastern portion fronting the Rue Charras. Much of the part bordering the Rue de Provence was little affected. The most damaged part being situated near the centre of the façade to the Boulevard Haussmann, where some of the floors gave way. To all appearances the fire raged with the greatest intensity on the sixth floor and in the basements, of which there were three, one under the other.

The cause of the fire is, so far as the public is concerned, still shrouded in mystery, many believing in a short-circuit. A curious point is the fact that the top and the bottom of the building were the parts most affected.

A visit of the premises is an experience not without attraction to those that see beauty in the implacable force of nature; this impression is enhanced by those who knew the emporium in its original gaiety. Dull débris now replaces coloured materials, and a barren mass of damp charred wood and fallen iron is found in place of an excited crowd. The decorated constructive elements are sadly defaced, but enough is left of the floors and large octagonal wells to show the noble proportions of the ensemble. In places stone basements are calcined and crumbled to pieces, but remain standing. One is struck by the durability of certain woods which, at times, though completely burnt and changed into charcoal, often remain "in situ," and can still carry a certain amount of weight.

This fire has shown in particular that unprotected iron is most unsuitable for heavy construction work if liable to be subjected to intense heat. Several of the built-up stancheons have literally melted like butter, the outside plates curving over like Ionic capitals and bringing down the floors with them. Others have been completely crushed, causing the roof to slant, and a general deformation in the whole structure. This phenomenon is most noticeable in the basements, which were partially used for storing, the floors in some cases inclining at an angle of from 30 to 45 degrees.

The popular reports about the non-resistance of reinforced concrete were, even if partially correct, to say the least, misleading. Such rumours tend to impair the reputation of the best of fire-resisting materials. Reports of this nature are the more dangerous when there is a grain of truth in them. The study of the jointing of reinforced concrete floors to steel framing is worthy of consideration. The hasty deductions, spread abroad from scanty evidence, were absolutely unfounded; this has now been verified. Not only was a very little of the damaged portion of the

structure built of this material, but in a part of the basements, in the very place where the fire was the most intense, a reinforced concrete staircase was left perfectly sound.

The Nouveaux Magasins were designed by Monsieur René Binet, who developed the principle of shop architecture said to have been invented by Monsieur Paul Sédille, who designed the old "Printemps." Monsieur Binet died in 1911, and the new premises were being completed by Monsieur Wybo when the catastrophe occurred. In principle, the building was an ordinary steel-framed structure with the usual stone or brick filling.

In my previous article it was stated that the "Printemps" was designed by a Grand Prix de Rome. This was a mistake. The writer, who knows something of the characteristics of Grand Prix men's designs, felt doubtful of this assertion, in spite of M. Binet's fame. On further inquiries it was found that an error had been made by confounding the names Bigot with Binet. The former was Premier Grand Prix de Rome in 1900. The latter's work, even if of a higher order than that of an average Grand Prix's, was in any case of a very different nature. Binet was a Beaux-Arts student and Diplomé by the Government, but was essentially an ornamentalist. He studied much in Italy and Spain, and was a clever draughtsman. He is said to have had a close correspondence with Professor Haeckel of Iéna University, who constantly sent him enlarged illustrations of protozoa. From the spirals of microscopic infusoria he is supposed to have found inspiration for the design of staircases. Be that as it may, the iron flight of stairs of the Nouveau Printemps was a masterpiece of its sort, ornamented in a most ingenious and effective manner. The fire has not completely destroyed this work of art, and it is to be supposed that the staircase will be repaired according to its original charm and a replica made for the new octagon.

It is a question whether this disaster has brought any new light to bear upon the design, organization, or construction of large establishments considered from the point of view of fire. Engineers already know the effect of heat on various materials, and that if the contents of a building once catch fire the best thing is to be able to extinguish the conflagration, or, failing this, to confine its activity to a prescribed area. The science of draughts, combustion, short-circuits, lack of water-pressure, and other technical causes of the spread of fire are by no means in their infancy. Accidents seem necessary to humanity, and after most disasters one always hears the reproach "I told you so." It is therefore reasonable to suppose that future considerations will be more directed to the putting into force, by severe laws and heavy penalties, of the knowledge and experience already to hand. Open confrontation of witnesses would do much more than theory.

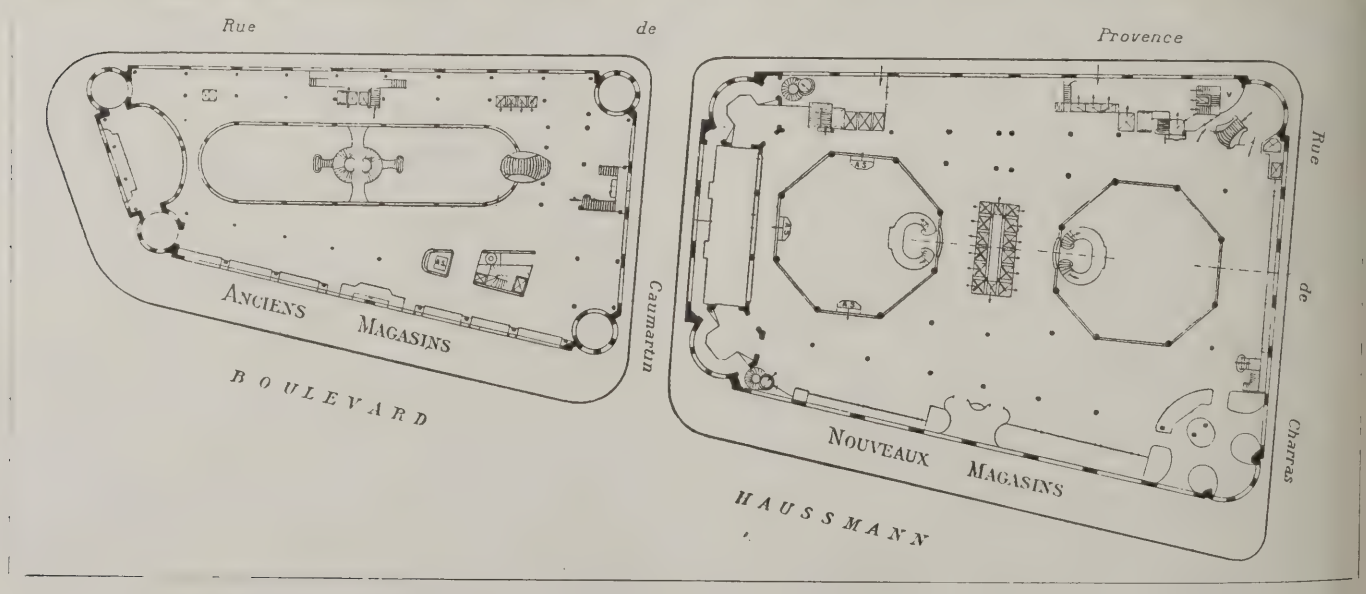
Experts, when asked for advice, can only reiterate the following platitudes :—

1. In buildings frequented by crowds unnecessary storing should be avoided.
2. Staircases and passages should be so arranged as to give easy access to the exterior.
3. Wood, hangings, and other inflammable materials should be treated by some process to render them uninflammable, etc., etc.

These observations, and a host of others already banal to engineers and architects, should nevertheless be made







THE MAGASINS DU PRINTEMPS, PARIS: SHOW-CASES AND PLANS.



MAGASINS DU PRINTEMPS, PARIS: STUDY FOR STAIRCASE. RENÉ BINET, ARCHITECT.

own to the public, so that the latter may hold them and ir clients responsible for the strict observance of their n principles.

A point upon which to lay stress is the danger of forcing artificial lighting, and loose electric wiring should be oided. The possibility of dividing large premises into partments by means of fireproof shutters is to be recom-nded. This, again, means a careful organization, for it necessary that everything move like clockwork at a ment's notice and without a hitch. In tall buildings the blic authorities should exact the placing of reservoirs in roofs to ensure the necessary water-pressure in the event an outbreak in the upper stories.

The question of sprinklers has been much discussed. ne years ago in the old "Printemps" a system of sprink-s was introduced; but, unfortunately, one fine day, ough some untoward accident, they went off in joyous hion and caused quite a sensation among the fair pur-sers. Since then the "Printemps" has abandoned the ention; possibly some improved form may again be talled in some discreet corners of the building.

Notwithstanding persistent accounts in the papers, the perts have not yet finished their investigations. It is an wind that blows nobody any good, and fire is hot stuff. asked when their detailed reports will be forthcoming y say: "Il faut attendre le Printemps."

* * * * *

The two photographic illustrations reproduced on ge 738 represent outward and inward views of the in entrance to the Nouveaux Magasins du Printemps, the corner formed by the junction of Boulevard ussmann and Rue de Charras. We are informed that showcases were executed by Messrs. Fredk. Sage & Co., d., of Paris and London.

Professor Pite on Higher Buildings

Professor Beresford Pite, in a letter to "The Times," makes the following observations on the movement to secure higher buildings for London:—

"Parliament has limited the height of new buildings in the sole interest of the community, and the prescriptive right to light and air, at times onerous enough to building owners, has operated in preserving sky-area to many others. The now recognized principle of the angle of 45 degrees cannot easily be surrendered. It is readily understood that the width between opposite walls determines their height, and this applies not only to the front elevation, but also in the rear and laterally. Legislation permitting an increase of height will tend to the destruction of this beneficent rule. If it is claimed that the new liberty will be exercised only on sites in wide or open places, it may be asked, What will be the effect to the rear and on the sides of the lofty frontage? The answer can only be that diminution of light and air will ensue.

"The internal courts and areas that cannot be avoided in condensed planning must not be overlooked. At present in most cases they are danger pits, containing drains which ventilate into their confined spaces. These non-evident factors are vital to sanitation.

"A comparison of the statistics of pulmonary disorders between Paris and London would, I expect, open the eyes of the public. Paris is a city of Boulevards and lofty buildings. London as a whole is loosely planned of both high and low edifices, but in spite of its greatly congested heart, is healthier than Paris. We may gain in height, but shall lose in health. In the interest of the vast population involved, this agitation to increase the shadows and gloom of their daily life in a foggy City must be strenuously contested."

Messrs. Lilley and Skinner's New Premise

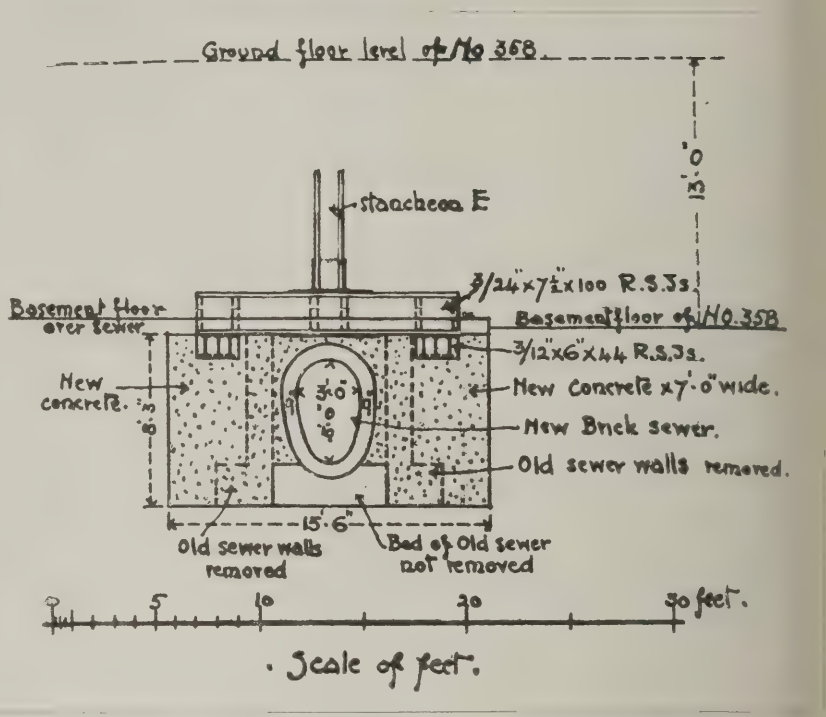
Adam Tradition Preserved

A modern shop that breathes forth the Adam spirit, suggesting in outward appearance and inward decoration the true Adam atmosphere, is in these days of Portland stone palaces an extremely rare occurrence. Yet the ghosts of a hundred and fifty years ago would find no cause of offence were they to behold the reconstruction of one corner of the Stratford Place with which they were familiar.

True, the original building has disappeared, but it has risen again with a charm and dignity quite unimpaired by its phœnix-like performance. Tall pilasters with their Ionic capitals, medallioned frieze, shallow cornice, none of these delights are lost, while the attic story, adorned by balustrading of fine proportions, gives additional charm.

The shop windows contrive in some subtle way to melt into the general harmony of the elevation, and the watchman's box, surmounted with its lion couchant, once a feature of the corner, is preserved. Mr. Arthur Sykes, the architect of the building, has indeed achieved a marvel, providing for his clients a very perfect shoe shop, while re-creating with reverential care one of our priceless fragments of old London.

The actual erection of the building was not without excitement. An ancient watercourse was known to cross the site, but its exact location was uncharted, and it was only when the main stanchion, destined to carry tremendous weight, was being put in that an 8 ft. culvert was discovered precisely beneath it. Hence arose the necessity for a very pretty piece of bridge work, depicted in an accompanying sketch.



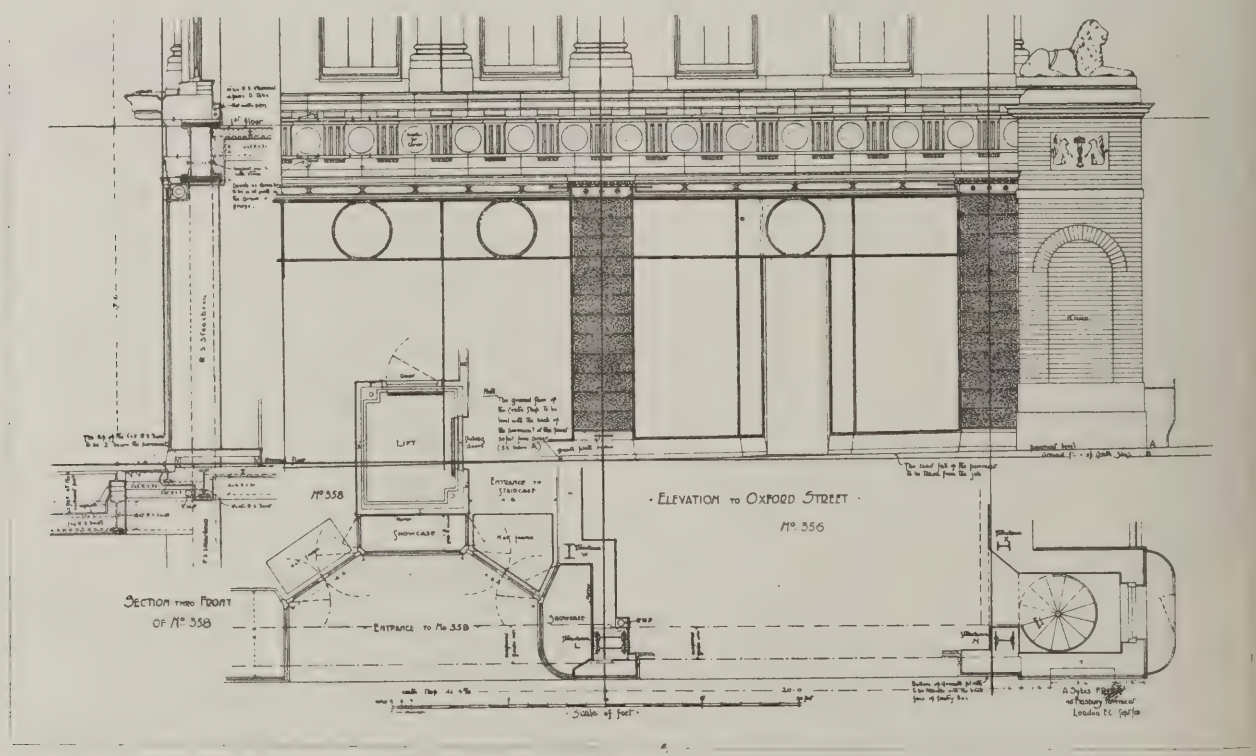
SECTION OF SEWER ENCOUNTERED BENEATH FOUNDATIONS.

The premises consist of a steel frame building roofed with Westmorland slates, and front walls of brickwork. The deliciously mellowed appearance of the original structure is skilfully retained by the use of a particular facing brick—purple stocks from Sussex. Dressings are of Portland stone, and the lower part of the elevation is vermiculated.

The recessed entrance is particularly delightful, and commercial uses a served by the erection of independe show cases, which, additional to t spacious bronze shop front, give liber opportunities for the display of wares.

Basement, ground floor, and first flo are occupied by the various departmen of the shop, and above are offices. T interior fittings are of light-colour

(*Continued on page 753*).



SHOP FRONTS IN MESSRS. LILLEY AND SKINNER'S NEW PREMISES, OXFORD STREET.
ARTHUR SYKES, F.R.I.B.A., ARCHITECT.

Current Architecture. 137.—New Premises for Messrs. Lilley and Skinner, Ltd., Oxford Street, London

Arthur Sykes, F.R.I.B.A., Architect



STRATFORD PLACE AS IT WAS.



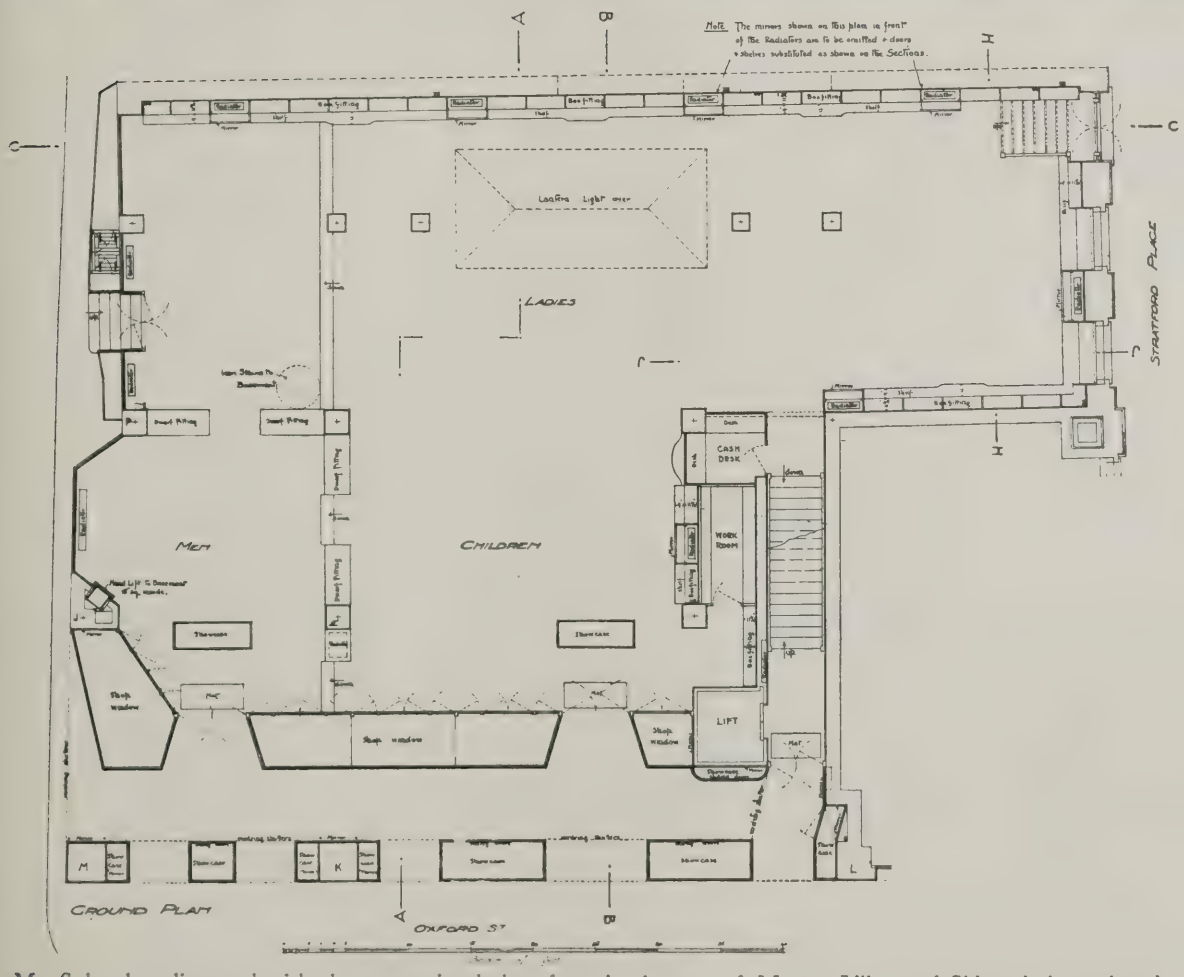
AS IT IS

In designing the new premises of Messrs. Lilley and Skinner in Oxford Street, Mr Sykes decided to preserve the architectural character of Robert Adam's Stratford Place. How very successfully this intention has been accomplished is apparent from the comparison provided by the above illustrations.

Current Architecture. 138.—Messrs. Lilley and Skinner's New Premises, Oxford Street: Detail of Shop Front

Arthur Sykes, F.R.I.B.A., Architect





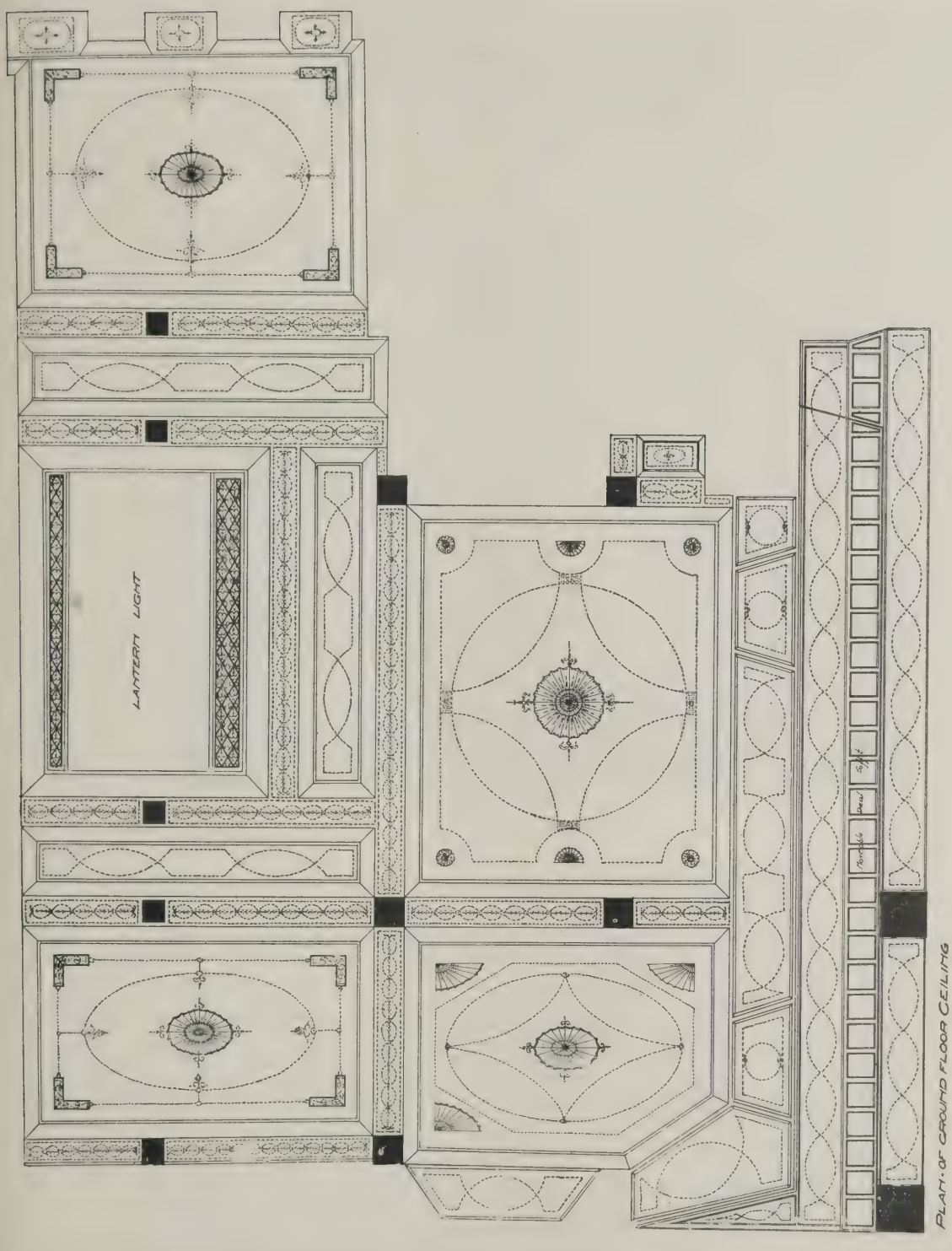
Mr. Sykes has dispensed with the conventional shop front in the case of Messrs. Lilley and Skinner's boot shop in Oxford Street, providing instead a row of showcases in line with the piers supporting the superstructure, an arrangement which, besides allowing free circulation, affords shelter to shoppers in wet weather.

Oxford Street : Fitting Room

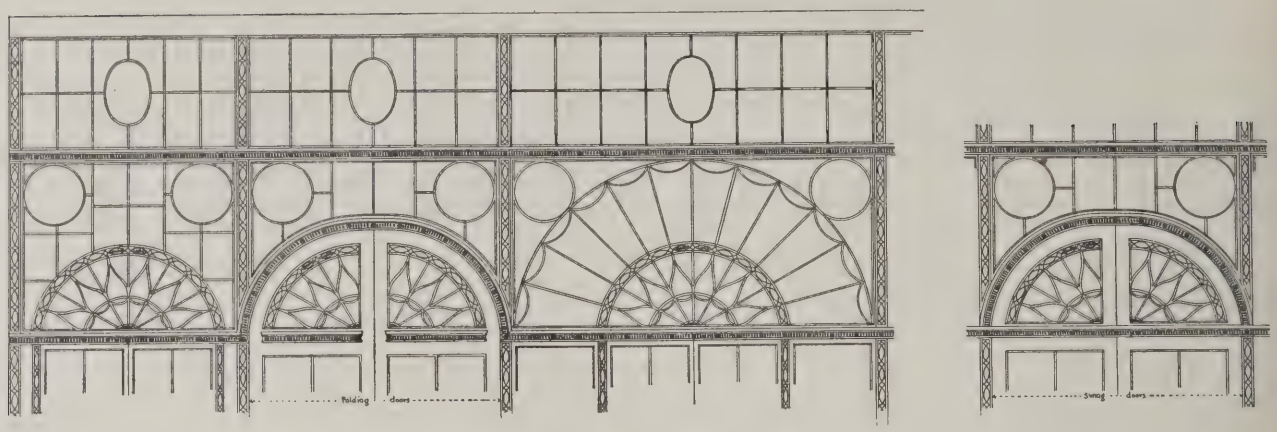
Arthur Sykes, F.R.I.B.A., Architect



Mr. Arthur Sykes has preserved the Adam note throughout the entire building. In the above interior it is apparent in the decorative detail of the piers, the plaster ceiling, and the cobweb fanlights to the shop window.



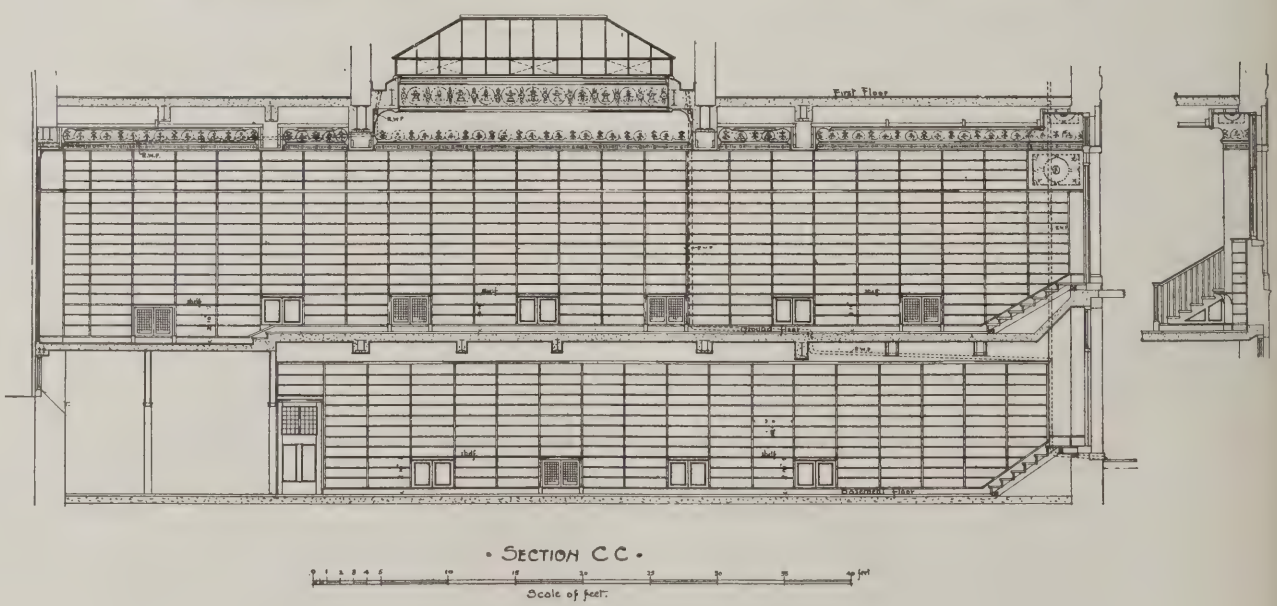
CEILING IN MESSRS. LILLEY AND SKINNER'S BOOT SHOP, OXFORD STREET, LONDON.
ARTHUR SYKES, F.R.I.B.A., ARCHITECT



DETAIL OF FANLIGHTS.



VIEW IN FITTING ROOM.

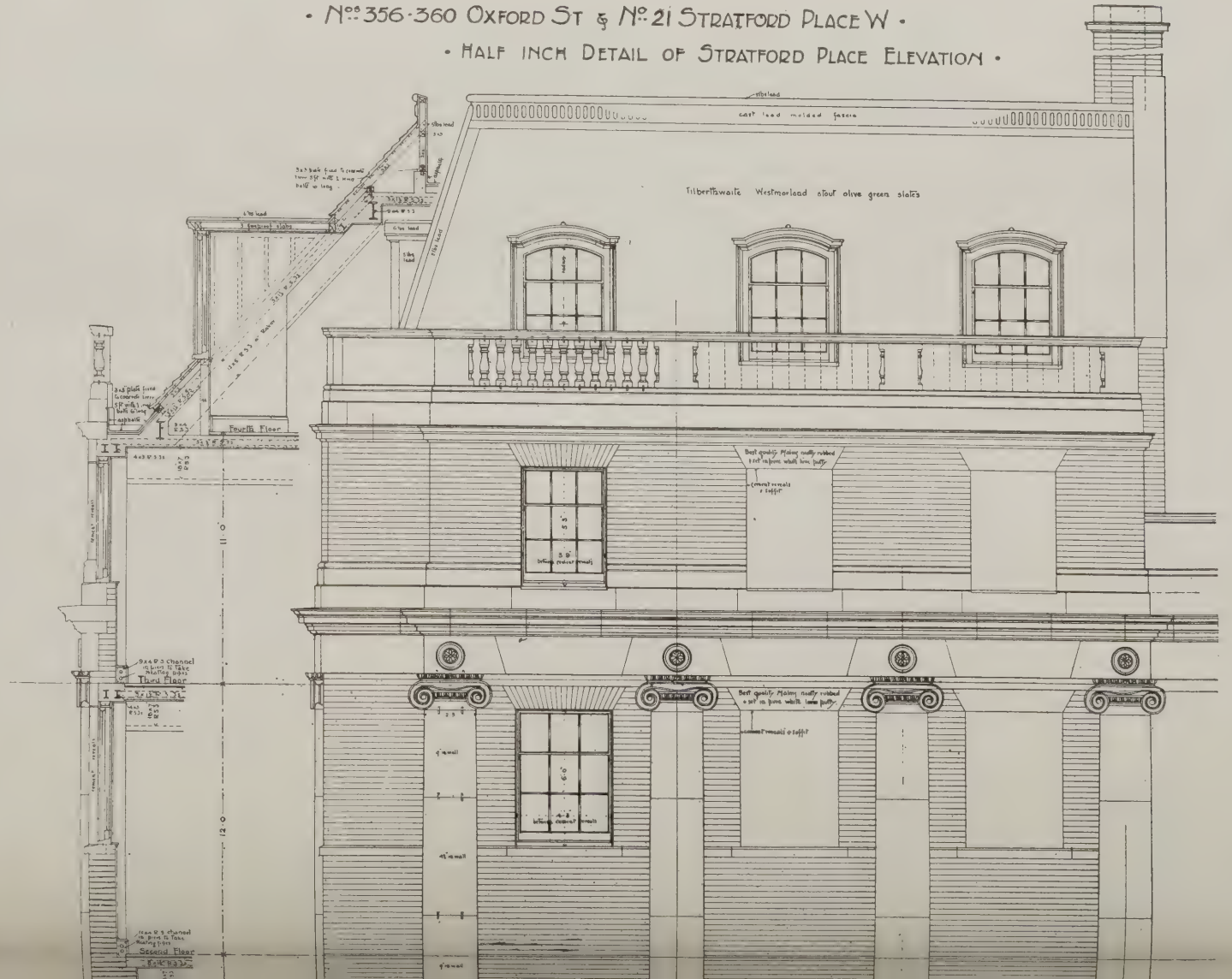


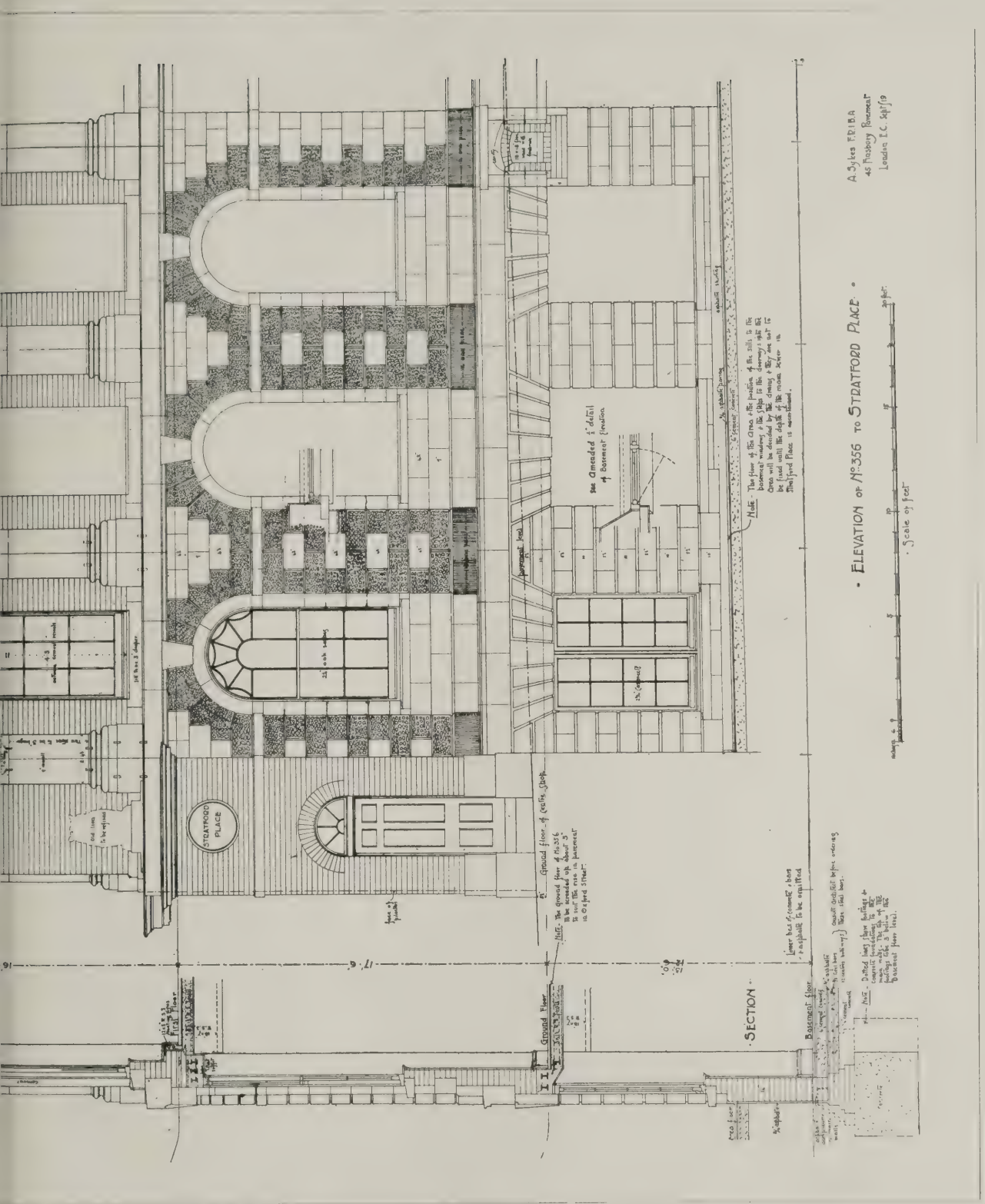
SECTION THROUGH FITTING ROOMS.

MESSRS. LILLEY AND SKINNER'S BOOT SHOP, OXFORD STREET, LONDON
ARTHUR SYKES, F.R.I.B.A., ARCHITECT.

Architects' Working Drawings. 46.—Premises of Messrs. Lilley & Skinner, Ltd., Oxford Street and Stratford Place, London, W: Detail of Elevation

Arthur Sykes, F.R.I.B.A., Architect





In building new and commodious premises for Messrs. Lilley and Skinner, Ltd., Mr. Sykes has very cleverly preserved the architectural character of Stratford Place, which was designed by Robert Adam. It will be noted that a fragment of the original work (a watchman's shelter) has been incorporated as an entrance to the new building.

(*Continued from page* 740.)

gany, and the showrooms are ed with admirable wall fittings e accommodation of stock. Those eyes must often have been offended seemly arrays of cardboard boxes ppreciate this marked advance in thetics of shoe-buying.

amental plaster in the Adam r adorns the ceilings, completing rangely attractive mixture of old- fascination and business - like nity which is the predominant e of the building.

srs. George Bollom & Co. were the l contractors, and others include . The Nine Elms Stone Co. (Port- tone); Messrs. Godfrey Gallard & arved stonework); Messrs. Drew- Perks & Co. (steelwork); Messrs. ves & Co. (patent glazing and fit- Messrs. John Bolding and Sons and . H. Pontifex and Sons (plumbing nitary work); Messrs. W. A. Hole ic wiring); Messrs. H. E. Gaze, Ltd. rwork); Messrs. Art Pavements Decorations, Ltd. (mosaic shop- ; Messrs. S. Haskins and Bros. netalwork); Messrs. Coules and Son ic light fixtures); Messrs. Waygood Ltd. (lifts); Messrs. Wontner-Smith, & Co. (heating and ventilating); s. The British Luxfer Prism Syndi- Ltd. (fire-resisting glazing).

Correspondence

Registration and Unification

To the Editors of THE ARCHITECTS' JOURNAL.

s,—In the vain hope of obtaining ation, a considerable section of the ers of the Institute are anxious to the momentous step of throwing the doors of the Institute to "All tects of the United Kingdom" ut test or examination. This all cing policy of "Unification" has vith the approval of the council, n due course the matter will come confirmation at a general meeting, it is to be hoped the dire and far ng consequences of this sweeping- icy may be seriously weighed.

ough we write in all sympathy with ration, we are not prepared to rt this particular step towards its ation, unless it can be demonstrated here is some reasonable prospect of ate success. It is true that Mr. on has told us at the Liverpool ess that "with Unity must come ration," but, with all respect to impson, this statement does not with it a sense of conviction, and, ver, it is directly opposed to what ston Webb and Sir Reginald Blom- ave told us.

m the broad and political point of it must be recognized that the ety of the country is to become and more democratic, and, as a quence, the chance of any particu- ction of the community obtaining tory privileges or protection be- more and more remote. In the t was not by way of protecting the rs, the doctors, and the dentists, they obtained Statutory powers; privileges were granted as a protection to the public. It will only be by architects demonstrating with overwhelming evidence that it is in the interest of the public, that they also will have Statutory powers granted to them. We are almost ashamed to confess it, but we must admit the fact that we have heard a very great deal about the benefit to architects, and, we are afraid, very little indeed about the benefit to the public, for, beyond the discounted statement of Mr. Simpson, there is nothing to encourage us to believe that the present movement of Unification is likely to result in gaining Statutory powers hereafter.

It is more than unfortunate, it is indeed misleading to ask us to support Unification now, as a step towards Registration in the future. In fact we are to be asked to pay for the goods before delivery, and the price is the ruin of the Institute. If the principle of Unification is to be adopted and maintained (and it seems useless to adopt it unless it is maintained) in the vain hope that Registration will result, then the doors of the Institute must be left open for all architects to enter, without test or examination, until that vain hope has been realized. Then, and not till then, can the doors be shut again.

The great majority of the corporate members of the Institute gained admittance at considerable personal sacrifice and by examination. Also, and it will not be forgotten, a pledge was given that after a certain date the ranks of the Licentiate should be closed. Are these sacrifices and this pledge to be scrapped? We cannot imagine that the majority of the members of the Institute will support the Unification movement without some guarantee that their sacrifices will not be made in vain.

GEORGE HUBBARD.
A. W. S. CROSS.

To the Editors of THE ARCHITECTS' JOURNAL.

SIRS,—I much regret Mr. Diggle should think, from my letter published by you on November 30th, that the R.I.B.A. Constitution League is opposed to Registration. I meant to convey entirely the opposite impression when I wrote "we are not opposed to Registration," and I can assure him we have some of the most ardent registrationists among our members. I have voted for registration on every possible occasion. Our only point is we wish to make the arrangements for the general admission of members a part of the Bill. That was the procedure adopted by the dentists when they obtained their Registration Act, and the Unification and Registration Sub-Committee in their report stated that "the new Dental Bill will form a valuable precedent when preparing the Registration Bill for Architects." We want the Institute to follow their advice.

On October 19 you published a most valuable article entitled "A Model Form of Law for the Registration of Architects." You gave us a draft Bill prepared by the architects in America, and Section 20 provides machinery similar to that embodied in the Dentists' Bill.

Again, I did not urge "the formation of a Constitution League R.I.B.A." I stated one had been formed, and we now have considerably over 100 members.

SYDNEY PERKS.

How to Restore Public Confidence in Building

To the Editors of THE ARCHITECTS' JOURNAL.

SIRS,—Your especial efforts at the present time to restore public confidence in building are commendable. It is a great pity a combined effort was not made earlier, as there is a general feeling since the war that the builder has not been working either in the interests of the community or in co-operation with the architectural profession generally. I have experienced many flagrant cases of this kind since the war, which have certainly left me sceptical as to the genuine feeling on the part of the master builders to revert to an improved pre-war footing with the architect. As I say, any really serious effort on their part at an earlier date might have averted what has become a distinct disinclination for mutual confidence.

It is beyond dispute that the spirit of studentship amongst architects at the present time, whether practising or qualifying to practise in the profession, is stronger than it has ever been before. The immense value of the more disinterested efforts on the part of these contemporary architects towards the renewing of public confidence is not yet fully realized by the more commercial architects and master builders, nor the benefit which they reap from these efforts themselves.

I quite agree with what has been said in THE ARCHITECTS' JOURNAL by Messrs. Higgs and Hill, Ltd., with regard to the importance of perfect and complete preparations in every detail before commencing any building operations. That is where the architect can co-operate with the builder in keeping down the cost substantially.

There can be no question of a ring amongst builders. Recent tendering alone is sufficient proof. Such a suggestion may do considerable harm at the present time, and the absurdity of it should be widely circulated.

The suggested scheme of "building for no profit" is not in my opinion a good one, and will only tend to weaken instead of strengthen co-operation.

ANNESLEY H. BROWNRIGG, F.R.I.B.A.

Publications Received

"The Periods in Interior Decoration." A Practical Guide by Herbert Jeans. With a chapter on the Progress of Paperhanging in England by Metford Warner. Price 5s. net. The Trade Papers Publishing Company, Ltd., 326 Bank Chambers, 329 High Holborn, W.C.

"Painting Troubles and Their Remedy." By Andrew Millar. Price 4s. net. The Trade Publishing Company, Ltd., 326 Bank Chambers, 329 High Holborn, W.C.

"Some Aspects of Art Education." Published under the auspices of the National Society of Art Masters, with a Foreword by Sir James Yoxall. Price 5s. net. George Allen and Unwin, Ltd., Ruskin House, 40 Museum Street, W.C.1.

"Old Inns." By Cecil Aldin. Price 25s. net. William Heinemann, 20–21 Bedford Street, W.C.2.

Sir Aston Webb's Address to Royal Academ Students*

I WANT to say a few words to you in my capacity as President of this great Academy concerning the career that you are entering upon. You, I take it from your presence in the schools, are intending to train yourselves so that you may devote your lives to the practise of art, that is of producing beautiful things in painting, sculpture, or architecture, as well as in objects of everyday use, and are, I am sure, full of enthusiasm and determination to produce what will not only appear beautiful to yourselves, but which will communicate to others a sense of beauty which they were not conscious of before. Lord Leighton once said "Art is based on the desire to express and the power to kindle in others an emotion astir in the artist, but latent in those to whom he addresses himself."

Before you can do this successfully you are, no doubt, conscious that there is a large amount of preliminary work to be done in overcoming the various technical difficulties which surround all branches of art, and which will warn you that there is no access to your objective until these technicalities have been mastered and converted into servants. It is mainly to help you to do this that these schools were founded.

Sir Joshua Reynolds himself spent much time examining and struggling with the technical difficulties of painting. It is recorded of him that he sacrificed two pictures—fine Old Masters in his possession—by rubbing and scraping away entirely their impasto in order that he might investigate the composition of the successive layers of colour; and his own pictures show unfortunately in some cases the results of his constant experiments in refractory colours, which, I am told, have led to their cracking and peeling. Sir Joshua had not the advantage of a Professor Laurie to teach him these things.

Early Stages

For a time after entering the schools you will feel like one in a cloud of mist, unable at first to see where you are going or comprehend the objects in front of you, but by degrees, with patience and practice, things will become clearer to you, the mist will gradually clear away, and you will find yourselves in the clear bright light brought about by the power of knowledge and understanding.

It may be a hard saying but worthy, I know, of all acceptation, that until you have gone through this drudgery and mastered these difficulties you will never produce anything worth preserving.

On the other hand, when you have once done so, when your hand follows almost automatically the direction your eye suggests and can transmit to paper the ideas that are active in your mind; when the modeller finds the clay easily taking on the forms desired; the building expressing naturally the purpose for which it is intended; then but not till then, will you know the full joys and disappointments of production, and find you have at last gained an entrance into an enchanted land.

If in England the love of beauty for beauty's sake is less than it has been in the past, it is for you to do what you can to quicken it; if it has been spasmodic it is for you to steady it and help to create a permanent tradition in England.

It is for this that the Royal Academy was founded 160 years ago, and it is owing to the Royal Academy and its Royal Founder that a School of the Arts has been created, and that we can believe a tradition is in the making, though we may be too near yet to see it clearly.

Schools and Traditions

A single individual may found a school, but it takes more than an individual to found a tradition; hence the great advantage to art in the association of artists in all branches of the Fine Arts in such an institution as this. But in order to found a worthy tradition there must be a genuine desire among artists for the advancement of art as a whole, and in order to attain this you students should, while holding fast resolutely to your own individual convictions, try at the same time to recognize and appreciate that yours is not the only possible point of view, but try to see that there are other views worthy at least of your serious consideration and respect. To be firm in your own view is right, but to be prejudiced against every other view is narrow and harmful.

A tradition need in no way fetter the individuality of the artist, but should act like the fly-wheel of an engine, which prevents sudden jerks and jumps, and secures to the machine a steady progression of the various component parts, each working together in its own way, but as a complete whole, so we, who are suffering just now from some very obvious bumps and jars caused very possibly by the general disturbance of the war, should find a recognized tradition helpful in steadying us.

There was a fine tradition in the art of architecture in England from the time of the Norman Conquest to the end of the eighteenth century, beginning with the tradition brought over by the Normans, and which we quickly assimilated and gradually developed into what we call Early English Gothic, passing on to Decorated and Perpendicular, each style having a distinct individuality, yet each naturally growing out of the other up to Queen Elizabeth's time, when foreign influences again made themselves felt and produced the hybrid styles of Elizabethan and Jacobean until the more scholarly Italian influence which, through the genius of Inigo Jones and Christopher Wren, again developed a worthy English tradition that lasted on through Queen Anne and the Georges; after which came a lapse back into revivalism and chaos, attempted imitations of past styles, and all orderly and progressive tradition as regards architecture was for the time lost.

Thus, for some 700 to 800 years England did possess a progressive architectural tradition accompanied by great individuality, and has left monuments that excite the admiration of the world, as our great churches and houses scatte all over the country, and yet produc in an orderly way such contrast as We minster Abbey and St. Paul's Cathedra

Through all this time the sister a were making comparatively little progr in England; though all our buildings fr the time of the Conquest show attem in colour, decoration, and sculpture, cannot be said—with the excepti perhaps, of stained glass—that a tradit of either painting or sculpture other th architectural and monumental sculpt was founded. Had it been otherwise is easy to imagine what a different st the arts of England would have been to-day.

The cause of this, as regards painting no doubt partially attributable to climate, which made fresco paint on stone or plaster walls very perishab

Colour and gilding were, inde largely used for the internal decoration buildings and sculpture, but both t and the figure painting were of a r description, the best perhaps being fou in the Eastern Counties where Flem influence was mainly felt.

The Efforts of Wren

Much good work was done in sculpt during these centuries in architectu figure and monumental sculpture, b neither in painting nor sculpture can be said that a British tradition in a sense was founded. Wren did his b to found one in all three arts. In painti he gave Thornhill and others some spl did opportunities; and in sculpture very largely employed Grinling Gibbo Pierce, and others. But though th left many imitators they cannot be s to have founded a permanent traditi

From the time of Henry VIII a Charles I onwards the court and nobil became in a way patrons of art, but th patronage was largely given to dist guished artists other than Englishm such as Rubens, Van Dyck, Holbe Verrio, and others who were brought o to England and very largely employ here. And so, again, no English school tradition was founded. To-day there a somewhat similar tendency among called patrons of art, who by the purcha of the works of Old Masters do lit towards an enlightened encouragem of contemporary English art, etc.

It is somewhat curious to note that a tradition of British painting, fostered the founding of this Academy, advanc British architecture lost its fine traditio and sculpture had not yet taken up t position that was its due, with the res that the three arts have never y flourished and advanced together in t country as they did, say, in Italy a Flanders during the fifteenth and s teenth centuries, and as they must here if we are to produce the finest a most complete work.

Hogarth is generally spoken of as t first essentially English painter, close

* Extracts from the address delivered at the Royal Academy on Dec. 10.

wed by Reynolds and Gainsborough; we owe largely to them and the ding of this Academy the commence- t of a great traditional school of ish painting.

need not recite to you the names of great painters of this last 150 years, mind you of the fine works in por- ure and landscape that they have n us.

ulpture was, perhaps, slower in onding to the call made by the found- of this institution.

ie marvellous Wren, by his encour- ient of sculpture, produced, as we seen, Grinling Gibbons and Pierce, wed by Bushmill and others in the nteenth and early eighteenth cen- s. Four sculptors were amongst riginal members of the R.A. : Moser Keeper), Yeo Wilton (Keeper), e (in West Gallery), and Conlini per). Afterwards, by election, came kens (1771), Bacon (1770), Banks), Flaxman (1797), Chantry (1816), Foley (1849).

t perhaps one of the first to give a touch to modern English sculpture Alfred Stevens, who for some un- ined reason was never elected a ber here. Since his time many tors have risen to fame—many of happily are still with us, and, there- outside our review—but I think it be said that sculpture has never been re living art in England than it is y.

Revivalism and Tradition

chitecture, on the other hand, as I said, lost its tradition soon after the ling of this Academy. Some fine ings have been erected during the d, but of widely different styles, as Elmes's St. George's Hall, verpool; Sir Charles Barry's Houses arliament; the Reform Club, Pall Norman Shaw's Scotland Yard. ust be admitted, however, that alism rather than tradition is chiefly n in these buildings, though it will be nized that the Houses of Parliament a great encouragement to painting culpture and the subsidiary arts.

t there are signs that architecture s again tending towards a more ly progress, which may result in the ing of a recognized school, and later ain a great tradition.

s, as it seems to me, is the interesting on of the arts that you students into to-day. It is for you to see you make the most of it, and assist nding a tradition worthy of England f British art.

studying old work I do not suggest you should do more than attempt uire a general acquaintance with its y and its effect on its contempo-

Such knowledge, together with esent whereabouts of the principal of each Master, is of the greatest st and usefulness, but must not be ken for—and is, indeed, altogether from—the creative faculty; a rarer ore precious gift, which it should ur chief endeavour to foster.

en you come to consider—as you consider—contemporary art, you nd very much to distract you. You nd in it possibly but few of the l principles we have been con- g. You will find in painting, ally, great and varied executant ability combined, perhaps, with brilliant technique, but remember, execution and technique alone—though of great interest to the artist—will never move the emotions of the spectator or set his mind aglow.

Test contemporary work by your own feelings and principles, and if it comes up to them don't be afraid to stand by it, for art, like everything else, must progress and change. Novelty is not wrong —quite the reverse, it is necessary—for mere reproduction of previous successes is no progress and interests no one over much. On the other hand, don't be misled by mere cleverness without thought or purpose. Such work has been well described as showing "Carelessness without grace, and individuality without distinction." On such work my advice is to pass it by. These men acknowledge no master and leave no pupil.

Then again, study all noble things you see around you in art and life; endeavour to surround yourselves in your homes with a few good and simple things; good art is not necessarily expensive, as some seem to suppose.

There has been some talk lately about art in common life. Depend upon it, this will come quickly enough when there is a desire for it. You may have noticed in these somewhat desultory remarks of mine that I have endeavoured to consider the three arts as one. The Royal Academy is an Academy of the Fine Arts —Painting, Sculpture, and Architecture —and its members are representative of all the three arts, and I hope always will be; and the first principles of art, I have endeavoured to point out, are equally applicable to all these arts alike, and in the great days one man would often practise them all. I draw your attention to this because it is not always fully realized by students, but I am anxious that it should be realized by the students of the Royal Academy as a necessary step towards a real renaissance in art.

One more suggestion and I have done. I sometimes think that art might have a larger influence in the world if those who practise it took a somewhat more active interest in the affairs and welfare of the cities and people among whom they live. You and I believe, I am quite sure, that beauty, and a sense of beauty in its widest sense, is essential to the enjoyment of life and to the full development of our powers, for how can life be sweet and pleasant passed in the hideous surroundings of many of our cities and suburbs; atrocities continue to be perpetrated year by year and not a voice is raised against them.

You might, and should be, missioners in your respective districts, amongst your immediate friends at first, and gradually in wider spheres for a larger recognition that æsthetics and amenities are essential aids to both health and happiness.

The Garden City Movement, spreading throughout the country—and, indeed, throughout the world—has done much to preach the value of healthy air space and comely dwellings. Artists themselves did something, some thirty or forty years ago, by building delightful houses for themselves, and I have heard them enlarge on the happiness their pleasant surroundings have brought into their lives.

I do not suggest that you should build houses for yourselves yet, but I do suggest that you should pay what attention you can to your surroundings and to what is going on around you. Much harm is unknowingly done for want of knowing better.

There may be in your neighbourhood a portrait to be painted, a small war memorial to be put up, decorations required for a function, an open-air play, or what not, and you might assist in obtaining the best artists available in each case; and you will find your neighbours will pay attention to you if they feel your only desire is to do the best possible and have no ulterior motive; and so by degrees you will be looked up to by your neighbours in all such matters, and be asked to take on greater public responsibilities. Don't refuse if you can do it without interfering with your own work. There are some, I know, who feel they are by temperament unsuited to such work. It is the duty, in my view, of all who can give up a certain proportion of their time for the public good to do so.

At the age of seventeen I was articled for five years, and then, after a year's travelling, I was for twelve years in partnership in a "two back pair" under the shadow of Charing Cross Hotel. On the first floor was a very successful architect. Whenever we heard a footstep we listened, but invariably the caller stopped at the first floor. Practically the only people who came to the second floor were people who wished to sell things we did not want or could not afford to buy. During my apprenticeship I spent much time, with shivering fingers, measuring the courtyard of Burlington House. Never in my wildest dreams did I imagine I would occupy the chair.

"Bilj" at the Architectural Association

A pantomime, joyously rowdy, revuesquely inconsequential, but underlaid by a vein of beautiful allegory is nowadays a rare and refreshing fruit, and crowded audiences at the Architectural Association signified their approval of the same in the usual manner. We enjoyed the fun, appreciated the highly topical seasoning, and felt that our minds were being improved the while. Powder was well concealed in particularly toothsome jam.

"A Tragedy of Dry Rot" is an entrancing jumble admirably produced. There is an inebriated Sultan and his skittish Sultana, an engaging villain in the historic person of Bluebeard, endowed with a vampire wife and a lovely daughter, and a perfect galaxy of princes, wives, eunuchs and slaves, some more clothed than others.

New songs are ingeniously fitted to old settings, and their shameless allusiveness was received with wild applause. We fancy that the gifted librettist took full advantage of his golden opportunity for paying off old scores.

A genuine tribute of admiration must be paid to two of the alluring "he-ladies" of the cast. The sinuous dancing of Rococo would not have disgraced Salome, and Arabesque's falsetto, though it made the throat sympathetically sore to hear her, was not less marvellous than her personal beauty.

The interval was a joy for ever. This sounds libellous, but merely means that the act-drop, with its priceless caricatures of the powers that be in Bedford Square, made us very happy. E. N. B.

R.I.B.A. New Members

At the last general meeting of the R.I.B.A. the following Elections to Membership took place :—

AS FELLOWS (15).

Barnish, L. [*A.* 1911], Birkenhead.
Beaumont, W. S. [*A.* 1905], Manchester
Biddulph-Pinchard, C. H. [*A.* 1921]
Bond, A. G., B.A.Oxon. [*A.* 1897].
Dahl, J. L. S. [*A.* 1909], Folkestone
Daubney, C. A., F.S.I. [*A.* 1900]
Davidge, W. R. [*A.* 1904]
Evans, C. G. [*A.* 1912], Neath
Gourlay, C., B.Sc., F.S.A.Scot. [*A.* 1887], Professor of Architecture, Glasgow
Hamp, S. H. [*A.* 1900].
Russell, R. T., D.S.O. [*A.* 1911], Delhi
Simpson, G. M. [*A.* 1893], Brighton
Sullivan, B. M. [*A.* 1913], Lahore
Vining, J. N. R. [*A.* 1905]
Watkins, W. G. [*A.* 1893], Lincoln

AS ASSOCIATES (111)

Adams, E. H. [Special War Examination], Shanghai
Armstrong, E. J. [Special War Examination], York.
Atkin-Berry, H. G. [Special War Examination].
Auld, A. C. S. [Special War Examination]
Bailey, C. H. [Special War Examination], Westcliffe-on-Sea
Barber, C. [Special War Examination], Leeds
Barnett, R. R. [Special War Examination]
Bateman, R. W., M.C., B.A. [*S.* 1920—Special War Exemption], Manchester
Batty, J. [Special War Examination], Northfleet, Kent.
Batzer, A. E. [Special War Examination]
Bickerton, W. C. [Special War Examination], Castleford.
Blackett, J. [Special War Examination], Port Sunlight
Blomfield, A., B.A. [Special War Examination]
Botting, M. [Special War Examination]
Bowes, T. S. [Special War Examination], Cardiff
Bridgman, G. S. [Special War Examination], Paignton
Broadbent, G. L. [Special War Examination], Leeds
Brown, K. H. [Special War Examination], Aberdeen
Brown, L. J. [Special War Examination]
Bryan, G. A. [Special War Examination]
Burgess, H. M. R. [Special War Examination], Pontypridd
Butler, C. G. [Special War Examination]
Butlin, F. G. M. [Special War Examination]
Campbell, J., D.C.M., M.M. [Special War Examination], Manchester
Carter, C. S. [Special War Examination]
Challen, H. B. [Special War Examination]
Channon, E. U. [Special War Examination], Malton
Charlton, E. S. [Special War Examination], Taffs Well
Cheers, W. A. [Special War Examination], Harrogate
Child, F. A. [Special War Examination], North Shields
Clark, R. G. [Special War Examination], Huddersfield
Collins, O. H. [Special War Examination]
Cooksey, R. A. [Special War Examination]
Crossman, C. J. [Special War Examination]
Darbyshire, T. S. [Special War Examination]
Davies, I. [Special War Examination], Nairobi.
Dawbarn, G. R., M.A. [Special War Examination]
Dean, F. M. [Special War Examination]
Donald, J. [Special War Examination], Aberdeenshire
Drake, F. M. [Special War Examination], Cairo
Durand A. H. [Special War Examination]
Easton, J. M. [Special War Examination]
Eberlin, A. E., M.C. [Special War Examination], Nottingham
Eprile, C. J. [Special War Examination]
Fawcett, G. H. [Special War Examination], Scarborough
Ferguson, R. W. [Final Examination], Edinburgh
Frear, E. [Special War Examination], West Bridgford
Frew, J. A. [Special War Examination], Kilsyth
Gale, G. A. [Special War Examination]
Gallie, C. R. [Special War Examination], Inverness
Gimson, H. M. [*S.* 1921—Special War Exemption], Leicester
Gresswell, H. [Special War Examination]
Harman, G. T. [Special War Examination], St. Margarets-on-Thames
Harris, M. R. H. [Special War Examination], Neath
Harvey, J. L., M.C. [Special War Examination]
Hedges, W. F. [Special War Examination], Accra
Henderson, J. M. D. [Special Examination], Ayr
Heysham, T. E. [Special War Examination]
Hill, O. [Special War Examination]
Hinwood, N., M.M. [Special War Examination]
Hiorns, P. T. [Special War Examination]
Horth, H. E. [Special War Examination], Hull
Humphry, H. W. [Special War Examination]
Hunt, S. [Special War Examination]
Hyde, S. [Special War Examination]
Ingham, L. W. [Final Examination], Co. Dublin
Jackson, R. [Special War Examination], York
James, A. C. [Special War Examination], Buenos Aires
Johnson, F. L. [Special War Examination]
Jones, H. [Special War Examination], Aylesbury
Lamb, H. A. J. [Special War Examination]
Leckenby, C. [Special War Examination], York
Logan, J., M.C. [Special War Examination], Newcastle-on-Tyne
Mann, W. R. J. [Special War Examination], Sunderland
Master, C. M., M.A. [Final Examination], Bombay
Mathews, B. K. O. [Special War Examination]
Mealand, H. A. [Special War Examination]
Meikle, J. A. [Special War Examination]
Mendham, J. B. [Special War Examination]
Mitchell, G. A. [Special War Examination], Aberdeen
Murray, K. D. P. [Special War Examination]
Needham, C. W. C. [Special War Examination], York
Palmer, J. [*S.* 1911—Special War Exemption]
Pickford, L. [Special War Examination]
Pinfold, S. [Special War Examination]
Plumley, D. J. G. [Special Examination]
Prosser, D. S. [Special War Examination]
Quick, N. D. [Special War Examination]
Sharp, F. G. [Special War Examination]
Skinner, C. G. [Special War Examination], Bristol
Small, W. [Special War Examination]
Snell, A. [Special War Examination]
Soutar, C. G., F.S.A.Scot. [Special War Examination], Dundee
Stableford, C. H. [Special War Examination]
Stocker, A. [Special War Examination]
Streeter, F. R. [Special War Examination], Thorpe Bay
Sunderland, C. [Special War Examination], Halifax
Sykes, M. N. [Special War Examination], Leeds
Symonds, J. B. [Special War Examination]
Taylor, W. J. [Special War Examination], Inverness
Tellery, F. I. [Special Examination]
Towle, C. R. [Special War Examination]
White, R. C. [Special War Examination], Aylesbury
Wilkinson, F., P.A.S.I. [Final Examination], Keighley
Williams, L. J. [Special War Examination], Penzance
Williamson, J. [Special Examination], Cardiff
Winch, K. M. [Special War Examination]
Wiseman, A. E. [Special War Examination], Chelmsford
Yeats, J. [Special War Examination], Aberdeen
Young, C. J. M., M.C. [Special War Examination], Perth
Young, F. N. [Special War Examination], Hong Kong

Law Report

Disputed Building Account

Brown v. Johnson.

Dec 5. Official Referees Court.
Before Mr. Edward Pollock.

This was an action in which Mr. Hugh Lynton Brown, builder, of Kingston Road, Southsea, claimed from Mr. S. Johnson and his wife, of Southsea, £755, balance of account for building a house to their order. The defendants disputed the claim on the ground that the charges exceeded the contract price.

The plaintiff's case, however, was that there was no lump sum contract and that the charges were to be based upon actual expenditure plus a percentage upon the cost as profit.

Plaintiff in the course of his evidence said that he carried on his business in the Kingston Road, Portsmouth, under the title of W. H. Fry & Co., and had been in business as a builder and decorator for twenty-four years, during twenty-one years of which he had known Mrs. Johnson in business relations. In January, 1920, she called upon him and told him she wanted a house built. She asked if he was prepared to give a price, and he told her he could not do so as things were so uncertain at the time. But he told her he would build it at cost price plus a percentage for profit. No plans were produced at the time and there was no reference to a definite house. There certainly was nothing in the nature of a contract, but Mrs. Johnson subsequently brought some plans, and even then he made no contract to do the work for a lump sum. The charges he had made represented the actual cost for labour and materials plus his profit. Everything at that time had increased enormously in price.

Mrs. Johnson, in her defence, said that Mr. Brown knew that she was paying for the house and that her husband had nothing to do with it. She denied that plaintiff had warned her that prices were going up, and said that some time in May plaintiff, after having seen the plans, said he thought £1,200 would cover the cost of the building.

In cross-examination witness said that she quite understood that the £1,200 would be the cost of the building and that Mr. Brown's 19 per cent. would go on the top of it.

The Referee, after hearing further evidence, gave judgment for the plaintiff for £730 4s., with costs, believing the plaintiff's version of the transaction, and that there was no contract to build for a fixed sum.

R.I.B.A. Council Meetin

The following business was transacte at the last meeting of the Council of t R.I.B.A. :—

Street Improvements and the Arch tectural Development of the City London.—It was decided to refer to t Art Standing Committee the consider tion of a request from the City Lan Committee, conveyed to the Council l the City Surveyor, for an expression the views of the Royal Institute on th question.

The Building Exhibition, 1922.— was decided to take part in the organiz tion of the "Architects' Welcome Clul at the Building Exhibition at Olympia.

The Imperial Institute and Timb Research.—It was decided to send to t Prime Minister, the Colonial Secretar and the High Commissioners for t Dominions a resolution in favour of t continued maintenance at the Imperi Institute of the valuable collection building timbers of the Empire.

London Street Architecture. — Th Council appointed the jury to draft a issue the conditions of the award.

Exhibition of Working Drawings. It was decided to arrange in the spring each year an exhibition of workin drawings of completed buildings for t guidance of students.

Sanitary Inspectors' Examinatio Board.—Mr. H. D. Searles-Wood was r appointed to represent the Royal Inst tute on the Board.

The Royal British Colonial Society Artists.—Mr. W. E. Riley, F.R.I.B.A was appointed to represent the Roy Institute to the British Colonial Socie of Artists.

Retired Fellowship.—Mr. A. B. Plum mer, F.R.I.B.A., was transferred to t class of Retired Fellows after thirty-tw years of subscribing membership.

Conjoint Board of Scientific Societies.— Mr. H. D. Searles-Wood was reappointe to represent the Royal Institute on t Conjoint Board for the year 1922.

Incorporated Church Building Society

The Incorporated Church Buildi Society have made grants towards r pairing the churches at Dover, Ho Trinity £50); Finsbury Park, St. An (£35); Horton Kirby, St. Mary, Ke (£50); Rimpton, St. Mary, Bath £25 and Kingsbury Episcopi, St. Marti Somerset (£60); and towards enlargu Christ Church, Northampton (£15 Grants have also been paid for wor completed at Shevington, St. Ann Wigan (£25); Carnmenellis, Holy Trinit Cornwall (£15); Camden Town, St. Pa (£40); Holne, St. Mary the Virgin, Devo (£175); Muckton, Holy Trinity, Linc (£50); Bampton Lew, Holy Trinit Oxon (£25); Newtown, The Holy Ghos Isle of Wight (£50); and Reach Missio Church, near Cambridge (£15). The su of £850 was also paid towards repairs thirty-two other churches. The Society dependent upon voluntary support, ar the Committee earnestly appeals for su stantial assistance so that it may mo adequately assist all the schemes church building and repair which con before it.

Abatement of Smoke and Noxious Vapours

Health Ministry Committee's Report

THE prevalence of smoke pollution in this country is mainly due to the indiscriminate and wasteful ;e of raw coal for all purposes, whether dustrial or domestic, and to the lax lministration of the law by the respon-ble authorities." This is the conclusion ached by the Committee on Smoke and oxious Vapours Abatement, which has st issued its final report. The commit-e was appointed by the Minister of ealth last year "to consider the present ate of the law with regard to the pollu-on of the air by smoke and other noxious ipours, and its administration, and to lvise what steps are desirable and prac-cable with a view to diminishing the ils still arising from such pollution," id was composed of The Right Hon. the ord Newton (chairman), Captain Sir n Hamilton Benn, Bt., C.B., D.S.O., .P., Professor J. B. Cohen, Ph.D., .Sc., F.R.S., Mr. W. S. Curphey, Sir ohn Lithiby, C.B., Mr. J. F. MacCabe, .S.O., Dame Louise Gilbert Samuel, .B.E., Mr. E. D. Simon, M.I.C.E., .I.M.E., Bailie W. B. Smith, O.B.E., id Sir Frederick Willis, K.B.E., C.B.

The committee state: The waste of el alone is a very serious consideration. is estimated that approximately 500,000 tons of potential fuel in the rm of soot escape annually into the mosphere from domestic fireplaces and o0,000 tons from industrial chimneys. t £2 per ton this represents an annual id direct waste of £6,000,000. But ie damage is not confined to waste of el. The unconsumed particles of fuel cape into and pollute the atmosphere our cities and towns, and materially creasing the expense and impairing the nenity of life in urban communities. has been estimated that in Manchester ie increased cost of household washing one, on account of smoke, is over 90,000 a year. In Pittsburgh, U.S.A., e actual money loss occasioned by noke is estimated to be at least £4 per ead of the population per annum.



CAEN STONE PLINTH OF THE HOUSES OF PARLIAMENT, SHOWING EXFOLIATION AND DECAY.

In the interim report (issued last year) we endeavoured to show the various other aspects of the damage caused, including the damage to health, vegetation and agriculture, and to building materials. We have little to add to the views there expressed. Subsequently, however, we have received a large amount of corroborative evidence.

The interim report included photographs illustrating the damage occasioned by smoke and other atmospheric impurities to the fabrics of Somerset House, the Houses of Parliament, the Tower, and Chelsea Hospital, but not, as it happened, of Westminster Abbey. Shortly after its publication there appeared in the columns of the press an appeal for Westminster Abbey. But the appeal quite ignored the fact that the gradual destruction of the Abbey is due not so much to time or to weathering as to the pollution of London's atmosphere by smoke.

In the various industrial districts which we visited for the purpose of studying local conditions and of hearing local evidence, witnesses appeared before us to complain of serious nuisances caused by the emission of smoke and grit from neighbouring factory chimneys, and by chemical fumes. These complaints proceeded from medical officers of health; from agriculturists who testified to the damage occasioned to their crops and livestock by chemical factories and smoke; from shopkeepers and residents in towns who stated that they were seldom able to open their windows owing to the state of the prevailing atmosphere; and from persons living in residential districts who were injuriously affected by noxious fumes.

We do not consider it necessary to labour the point. We have received abundant evidence to show that the nuisance is very real and widespread. We think that by this time it should be regarded as an axiom that an impure atmosphere is highly deleterious to health and property, that it is indicative of wasted fuel and energy, and that every practicable step should be taken to prevent it.

After giving a large amount of useful information on the subject the committee make the following recommendations :—

Industrial Smoke

That the Minister of Health should be given clearly defined power to compel or act in place of any defaulting authority which refuses to perform its duty in administering the law with regard to smoke.

That the general legal obligation on all manufacturers, users and occupiers of any business premises or processes, engines or plant of any description whatever should be to use the best practicable



DECAYED WESTMORLAND SLATES FROM THE ROOF OF CHELSEA HOSPITAL.

means, having regard to all the circumstances of the case, for avoiding the pollution of the air by smoke, grit, or any other noxious emissions; that the same law should also apply to all Government establishments and all rail and road locomotives and motor cars of whatever weight or type, and to steamers on rivers, estuaries, and lakes. It must be clearly understood that questions of cost must be taken into account in determining what is practicable.

That the Minister of Health should be empowered to fix standards from time to time, and in any case in which the emission exceeds the standard so fixed, the onus of proof that the manufacturer is using the best practicable means should be on the manufacturer.

That the *duty* of enforcing the law with regard to pollution of the air by smoke should be transferred from the local sanitary authorities in whose jurisdiction it now rests to the county authorities, *i.e.*, the Councils of Counties and County Boroughs; minor authorities should still have *power* to take proceedings if they so desire.

That the Minister of Health should be empowered to constitute Joint Committees consisting of two or more Councils in cases where it appears to him that this course would lead to the better administration of the law with regard to smoke in any given area.

That the Minister of Health should assign to one or more competent officers the duty of advising and assisting local authorities and manufacturers with regard to difficult smoke problems; these officers should report annually on the steps which are being taken and the progress which has been made in the suppression of avoidable smoke.

That the law should enable much larger fines to be imposed than at present.

That legislation should be introduced at an early date with a view to consolidating in one measure the various existing statutory provisions with regard to the pollution of the air by smoke, and providing for their amendment where necessary to give effect to the above recommendations.

Domestic Smoke

That the central Housing Authority should decline to sanction any housing scheme submitted by a local authority or public utility society unless specific provision is made in the plans for the adoption of smokeless methods for supplying the required heat as suggested in our interim report. The only exception to this rule should be when the Central Authority are fully satisfied that the adoption of such methods is impracticable. (See Section VII, Recommendations, of the interim report).

That the Government should encourage the co-ordination and extension of research into domestic heating generally. This is a matter of great importance in view of the many outstanding problems which demand enquiry. (*See* Section VII, Recommendations, of the interim report).

That local authorities should be empowered to make by-laws requiring the provision of smokeless heating arrangements in new buildings other than private dwelling-houses, such, for example, as hotels, clubs, offices, and the like.

General

That gas and electricity undertakers should be given every facility and encouragement to increase and cheapen the supply of gas and electricity, and that the practice at present followed by some municipal authorities of over-charging for gas and electricity in order to allocate the profits thus accruing to the relief of the rates should be discontinued. (*See* Section VIII, Recommendations, of the interim report).

Noxious Vapours

That the Alkali, &c., Works Regulation Act, 1906, should be amended so as to apply generally to all manufactures from which noxious vapours might come.

That a list of such noxious vapours should be included in the Act, and the Minister of Health should be empowered to add to this list from time to time other noxious vapours, after due inquiry.

That a general obligation should be placed on every manufacturer of using the best practicable means for preventing the escape of noxious or offensive vapours.

That the present system of registration should be continued, and the Minister of Health should be empowered to require the registration of classes of works not at present required to be registered.

That the Minister of Health should be empowered to fix standards from time to time after due public inquiry with regard to noxious vapours in cases where he finds it desirable; and these standards should have the same legal force as those which we recommend with regard to smoke.

The proposals which we have put forward are of a prosaic but practical character; for it appears to us that, although amending legislation to a limited extent will be necessary, the chief requisite is the enforcement of the provisions of the existing law, strengthened and altered as to its administration in accordance with the recommendations which we have put forward. We have been struck by the fact that, more especially in the large cities, there is a strong body of educated opinion which is extremely dissatisfied with present conditions, and would welcome more drastic action. The marked improvement in the atmosphere of London and other large towns during the recent coal stoppage has, we believe, intensified this desire for reform. On the other hand, it is an undoubted fact that the great majority of the public have never given any thought to the question of smoke prevention.

Residents in industrial districts who have grown up and passed their lives in surroundings which occasionally appear to be almost intolerable, are found to acquiesce in a state of things which they believe to be unavoidable. Side by side with this attitude of indifference or resignation there still exists, unfortunately, a widespread delusion that the presence of smoke implies prosperity, and that the blacker and grimier a district the more flourishing are its circumstances. This attitude of indifference is reflected in the apathy of the great majority of local authorities throughout the country, who, as we point out, have failed to do their duty.

No Government has, for many years, taken any action with the exception of appointing committees, whose labours have led to little or no result. Smoke and air pollution are, in our opinion, a national question, and we consider that it is useless to expect that it will be adequately dealt with by local authorities unless they are subject, when necessary, to the stimulus of Government. It is for this reason that we recommend that defaulting authorities should be compelled to act by the Minister of Health.



MEDAL TO BE AWARDED TO CERTAIN FOREIGN SUBJECTS WHO GAVE ASSISTANCE AND SUCCOUR TO BRITISH PRISONERS-OF-WAR, 1914-1918
DESIGNED BY C. L. J DOMAN, R.B.S.

The Architectural Treatment of the Small House*

By S. C. RAMSEY, F.R.I.B.A.

THE history of the cottage and the small house in this country can only be said to commence with the ssing of the Middle Ages. We know tle of the houses of the poor in mediæval ys; they must have, for the most part, th the exception of those who lived ıder their master's roof, been housed ıder conditions of extreme wretched-ss. With roofs of thatch or straw, ud floors, unglazed windows, their ıuses can at the best, at any rate in the ral districts, have been little better an hovels.

As wealth increased and some degree independence was attained these con-tions were improved, and we find in the teenth, sixteenth, and seventeenth cen-ries substantial cottages and small ıuses for the yeoman class erected roughout England. Our villages owe uch of their charm and picturesqueness these cottages and small farmhouses—certain parts of England they still ist in great numbers, and it is hoped ay continue to exist for many years to ıme.

It may be said that all the historical ıanges from Tudor times until the end the eighteenth century and the begin-ng of the nineteenth century were the sult of a slowly changing tradition, hich, nevertheless, expressed itself dur-g the different periods with markedly fferent results. In the earlier Georgian ıys the cottage became more formalized, ıd it may be said that, in the Georgian ·iod, the small house, as we under-and it, first eventuated, until in late eorgian times we find a vast number of nall houses, both isolated houses and in roups of formal composition, quite dis-nct from the cottage, as a cottage, and rving as the residences of a distinct and ıltured middle-class. It was not until ıe middle of the nineteenth century that ıe architectural tradition finally died.

The old order changeth, yielding place to new,
And God fulfils Himself in many ways,
Lest one good custom should corrupt the world.

The industrial period, with its rapid evelopment of small villages and towns to great industrial areas, resulted in an ıtire change of method and style of ıilding.

The Speculative Epoch

From the middle of the nineteenth ntury up to the beginning of the Great ar was the period of the speculative ıilder. Though many hard things have en said, and justly said, as to his archi-ctural efforts, it must be remembered at he did, in spite of all his mistakes ıd errors, provide for the housing quirements of the people. Even during is period there were, of course, many nall houses erected by architects both r individual clients and as cottages for ırious large landowners.

To return to the position of the present time, which is chiefly characterized by so anxious a searching for architectural precedents, it occurs to me that there is a very striking analogy between a modern collector of old furniture and the modern architect seeking for traditional motives. In a perfectly healthy state of design one would not think overmuch as to tradition and precedent, but would rather execute one's various commissions in the vernacular of the day. But we have not been living in a perfectly healthy time, and it appears to me that before there can be any generally accepted tradition, either in our architecture or in our furniture, we must have accustomed our eyes, and possibly the eyes of our descendants, to the lines and features of good design, and that this desire to collect old pieces of furniture for the interiors of our houses, and architectural motives for the exteriors of our houses, is based on a very sound and vital principle. It is in effect a desire to obtain the best the past can give; to recapture some of the beauty and charm that we have lost in an age of industrialism, and even at times, though it results in a somewhat abjectly slavish copying, I do not think we need greatly distress ourselves. It is difficult to believe that any style can be formed as the result of mere volition. We must have our eyes accustomed to good lines and sound traditions of craftsmanship, not for one generation, but for several generations, before we can hope to express ourselves in a vital and living style.

Present Tendencies

At the present time we are suffering from a somewhat violent reaction from the individualistic outlook, and we are somewhat, I think, in danger of becoming a little too academic and formalized. As I have already said, the beauty of our houses and cottages depends very greatly on what may be called the influences of locality and the use of local materials. Some twenty years ago this theory of the use of local materials was pushed almost to excessive lengths, and the question of design was considered of very secondary importance compared with the right use of stone and slate in a stone country, tiles and bricks in a clay country, and timber in a wooded country.

In the early years of the nineteenth century we do find that slates were transported to clay counties, and stock bricks were used in stone counties, but the results, if interesting, are never quite happy or convincing. The due consideration of local traditions and local materials are very real and urgent, and can only be neglected at our peril. It must be remembered that the society of this country was, until the industrial period, almost entirely an agricultural society of long standing, with a nicely graduated social hierarchy, and that the buildings and architecture did but reflect and express such a society.

It was the coming of industrialism with its new scale of values, the result of development of large populations in districts remote from the cultural centres of the old agricultural civilization, that led to such a chaos in the Arts. And the great problem that faces us all to-day in the political, social, educational, and artistic worlds, is the need for organization, the need for a new determination of values, the need for a marriage between science and art. During the industrial period it was the country town and village that was neglected, and it is by an irony of fate that it is to these centres of agricultural civilization that the weary eyes of an industrialized community are turning for salvation.

If I may suggest it to a Northern audience, and as a Southerner I do so with all becoming deference and humility, it is to the agricultural and unprogressive South (the parasitic South, as it has been called), that the industrial and progressive North might turn for comparison and enlightenment—always, of course, having in mind that the problems of to-day are not the problems of the past, but new ones arising out of the conditions under which we live, and demanding new solutions of their own.

I do feel strongly that there is a great need at the present time for some systematic study of our older towns and villages, much in the same way that we have studied old examples of architectural buildings in order to analyse and determine in what their charm and beauty consists. Town-study if you like from the architect's point of view, rather than the town-planner's. Such study or analysis should deal with a village or town as a whole, starting with the plan and some sort of knowledge of its growth and history, and then proceed to the buildings with special reference to such of them as might warrant a more detailed attention.

The whole question of housing since the war has become so mixed with bitter political controversy that it is a little difficult for us to take a fair view of it. We cannot see the wood for the trees, and some little time must elapse before we can get the right perspective. Amidst all the clamour and criticism directed at the Minister of Health, for all that has and has not been done in the way of providing houses, one aspect of the problem has largely escaped public attention—and that is, the effect of what may be called the housing movement on the future architecture of this country.

The Social Movement

In the past, all great periods of artistic creation have arisen from social movement, which, affecting the lives and habits of men, has found expression in some particular form of energy, the realization of the sense of the joy of living at some particular time. Power concentrated in the hands of the great overlords, spiritual and temporal, gave us mediæval art. Power centralized and concentrated in the hands of kings and princes gave us the art of the Renaissance. This centralized and concentrated power represented certain move-

* Extracts from a Paper read before the Liverpool chitectural Association (Incorporated).

ments in the body social, which expressed itself in the ways indicated.

Other examples could be given of cause and effect, from all times and in all ages, but these will suffice for the purpose of the argument. Now, to-day, more and more is the power of direction passing to the great democracy, and any great artistic movement or expression must be based on, and representative of, democratic ideals and aspirations properly understood and sympathetically interpreted. All this has been said before, and many times. Morris, Ruskin, and a score of other teachers and leaders have reiterated this truth. For the first time in the history of this State the Government has taken upon itself to provide houses for the people. If this were all, there would not be much more to add, at any rate as far as architecture is concerned; but this is not all—it is, indeed, very far from all.

When the Great War finished, there was a general determination among the people of this country that the men who fought and won the war should have opportunities for fuller and richer lives; and as it was impossible to discriminate between those who had fought in the field and those who had served in the workshops and factories at home, it meant, in effect, that all men were to have these opportunities. These ideas were current before the war, but the war crystallized them and gave them effect, and the first realization of these changes became apparent when the great problem of housing had to be faced.

Improved Standard of Housing

When the Ministry of Health issued their first Manuals on Housing, in which were laid down certain minimum standards as regards the houses and the disposition of houses, it at once became apparent that a great advance had been made on pre-war standards. Now, it is not pretended that those who framed these regulations were moved by any great artistic considerations. Their problem was that of providing healthy and economical homes. The average worker's house before the war was a thing of almost unmitigated horror—rows upon rows of cheaply and tawdrily built villas apeing in their excrescences of coloured glass and distorted stone dressings the dreary habitations of the more superior suburbs. The contrast between them and even the worst of the houses erected under the Ministry of Health is great and instructive.

Mounting prices and the need for rigid economy have lopped off all the extraneous and hideous features beloved of the speculative builder. Gone are the coloured lights to the front doors; gone the sham half-timber work to the unnecessary gables; and gone the stone and terra-cotta ornaments that adorned bay windows and porches in unnecessary reiteration from the end of one dull, long street to the beginning of another. The Government houses have been described as brick boxes with lids on them, but even the most bald have something of that homely air that belongs to the old-time cottage and the farmhouse—the habitations of a community who built for other purposes than profit.

It was a wise decision of the Government to make the various local authorities responsible for the carrying out of the schemes, rather than to attempt to direct them from some centralized office. Control and direction there had to be; but the fact that for the first time in their history the people of these islands were to have a direct interest in the building of their own homes is one fraught with a peculiar and far-reaching significance.

Architects who are responsible for the execution of these schemes and for the technical work involved in the planning and building of these villages and small towns, for such in many cases they are, know that not the least intelligent or responsive of local authorities are those councils chiefly composed of what, for want of a better word, is called "labour." They and their kinsfolk are to inhabit these houses, and their interest is direct and personal—they are building their own homes. Now, it is axiomatic that before a man can be a good citizen he must in some degree be a sound man, and it can safely be assumed that before a man can take a general interest in the fine arts he must take a particular interest in the art of his own home. Our pre-war art had become remote and precious. It was, in the worst sense of the word, eclectic. Our painters were too much concerned with problems of technique, our sculpture was the clay of the studio petrified into stone, whilst our public architecture savoured too much of the drawing-board and tee-square. There was little of it that throbbed with the life of interested humanity. It was for the most part dead, academic, unrelated.

I must plead guilty to a somewhat lengthy digression from the strict title of my paper; but I do feel, and I hope you will agree with me, that the architectural treatment of the small house should be approached from a wide and sympathetic outlook, that it should not be regarded as an architectural cul-de-sac, but as related to the great architectural questions of to-day.

In a good many cases there is the same hesitancy about street design; and though, generally speaking, a more formal note is struck (sometimes, as on hill-side developments, not quite happily) due to a demand for greater standardization, many schemes lack the coherency of a complete idea. This is partly due to the fact that housing has gone on apart from other buildings which an organized community demands; and though in the best schemes sites have been planned for shops and public buildings, they have not in most cases been built.

The result is a lack of scale in our work; numbers upon numbers of two-story houses without any break in the skyline, other than that given by the fall and rise of the ground, is apt to be monotonous. This is a fault that it is hoped time may cure, but there is a more serious criticism which time can but accentuate—and that is the lack of a unifying idea in the arrangement, or *layout*, as it is known (though the term smacks somewhat of the prize ring). All the usual shapes and dodges may be there, houses nicely arranged in groups round a green, set-backs from the road with prettily devised screens of trees, and cunningly contrived culs-de-sac; but the central idea is missing; the same arrangements with modifications are used to express a foothill village, a village on the plains, a valley development, a village on a main road, or an extension to an existing village or town; there is a house for everybody but the genius loci.

As I have already said, the need of a rigid economy prevented any but the plainest and severest of architectural treatments, but I do not think that this has been altogether for the bad. If the Ministry knife has cut deep, in some cases many of us think too deep, it has brought us to bed-rock essentials in design. And most of these post-war houses (with a few woeful exceptions) do in fact attain to a very fair standard of architectural design.

White Lead in Paint

Mr. E. M. Johnson, chairman of the White Lead Corroders' Trade Section of the London Chamber of Commerce, has sent us a communication in the course of which he invites the co-operation of the operative as well as the master painter in preparing the details of, and in making effective, the regulations with regard to the use of white lead and sulphate of lead in paint. These regulations are embodied in the following convention, a compromise secured as a result of the appeal of Dr. Legge, the representative of the British Government, which was adopted by ninety votes to nil by the International Labour Conference held at Geneva:—

1. Prohibition of the use of white lead and sulphate of lead and of all products containing these pigments in the internal painting of buildings, except for railway stations or for industrial establishments where their use is considered necessary by governments after consulting employers and workers. The use of white pigments is permitted containing not more than 2 per cent. of lead expressed in terms of metallic lead.

2. Artistic painting and fine lining are free from prohibition.

3. Females, and also males under 18 years, are to be excluded from painting with these pigments, with an exception for apprentices.

4. These prohibitions do not come into force until November 19, 1927.

5. Regulations (coming into effect not later than January 1, 1924) are prescribed for the use of white lead, sulphate of lead, and of all products containing these pigments in operations for which their use is not prohibited. These regulations are to be based upon the following principles: 1. (a) White lead and sulphate of lead to be used only in the form of paste or paint ready for use; (b) Avoidance of danger from paint spraying; (c) Avoidance of danger from dust caused by dry rubbing down. 2. (a) Provision of washing facilities; (b) Use of overalls; (c) Storage of outdoor clothing. 3. (a) Notification and verification of cases of lead poisoning; (b) Medical examination, if necessary. 4. Distribution of instructions as to hygiene of the painters. 5. Governments are to consult employers' and workers' organizations in regard to the enforcement of these regulations. 6. Provisions are to be made for obtaining and recording in each country statistics of lead poisoning among painters.

Mr. Johnson states that these regulations represent the policy which has always been advocated by the White Lead Corroders' Section as the best means for obtaining the desired end—the improved health of the painter.

The Week's News

Harrogate Church.

e church at Harrogate is to be re-ed and improved at an estimated of £1,600.

Dispensary for Lambeth.

Government inquiry is to be held ling the building of a tuberculosis nsary in Lambeth.

Housing at Woolwich.

e B.C. are applying to the London cy Council for sanction to a loan of 00 for housing.

Swedish Sandviken Drill Steel.

ssrs. Ingersoll Rand Co., Ltd., have appointed sole agents in the British or the Swedish Sandviken drill steel.

w Municipal Offices for Blackpool.

the extension of municipal offices pool Council has decided to buy a of business premises for £75,000.

Honour for South Wales.

diff has been selected by the Royal ute of British Architects for the d annual conference of architects to ld next summer.

Ilford War Memorial.

e design of Mr. Newbury A. Trent, ., of Chelsea, has been accepted e Ilford War Memorial Committee war memorial monument.

Exhibition of Pottery.

exhibition of pottery will be opened e Design and Industrial Association nuary 2, at 6 Queen's Square, W.C.1. ckets of admission will be required.

racombe Promenade Improvement..

acombe U.D.C. are considering lay-lans prepared by architects for the vement of the Victoria Pleasure nds.

Architects' Change of Address.

ssrs. O. P. Milne and Paul Phipps, I.B.A., architects, have moved to gmore Street, London, W.1. Tele-: Mayfair 7105.

London's New County Hall.

the present rate of progress is ained there is every reason to hope he new County Hall will be fit for se of the Council by midsummer

Housing and Town Planning.

National Housing and Town Plan-Council has decided to set up an y Committee to frame a compre-e policy of housing and town-ing betterment.

uilders' Forty-four Hour Week.

building trade unions anticipate at the statutory meeting of the and Conditions Council for the ry in the third week in January the on of the extension or variation of rking week will come to a head.

Royal Chapel in Danger.

roof of St. George's Chapel, or, is in danger of falling in. If it mage irreparable would be done to of art, historic relics, and the tombs gs. The Dean of Windsor is greatly ned about the danger, and is work-enuously to raise funds to save the ng for the nation.

Chemistry for Collectors.

Dr. Alexander Scott has perfected methods for the preservation and restoration of antique objects deposited at the British Museum. He has arrested the discoloration of enamels, and can now remove from antique silver, without injuring it, the deposits of copper compounds.

Lille Drainage Scheme.

The Department of Overseas Trade are in possession of particulars and a plan of the Lille municipal drainage scheme for the area of Basse Deule. The documents, which are in French, may be inspected by United Kingdom firms at the Department (Room 84), 35 Old Queen Street, S.W.1.

The Late Mr. J. G. Stallebrass.

The death is announced of Mr. John Garner Stallebrass, of Peterborough, at the age of sixty-eight years. For about forty years Mr. Stallebrass was in practice as an architect, and did a lot of work in connection with schools and other buildings in Peterborough and surrounding districts.

A Correction.

We much regret that in the description (published in our last issue) of the new entrance to Messrs. Marshall & Snelgrove's premises in Oxford Street, a mistake occured with regard to the contractors for the work in Hopton-wood stone. All this work was carried out by Messrs. Burke & Co., of 13 Rathbone Place, London, W. 1.

St. James's Vestry Hall, Piccadilly.

Negotiations between the directors of the London Joint City and Midland Bank and the Westminster City Council have resulted in the drafting of a recommendation that the site of the St. James's Vestry Hall, Piccadilly, be let to the London Joint City and Midland Bank on a building lease for eighty years for the erection of bank premises.

Hot Water Apparatus for Belgian Houses.

H.M. Consul at Liège has issued a request for particulars from United Kingdom firms of practical and economical water heating apparatus suitable for installation in Belgian dwelling houses. Catalogues and particulars, together with terms, should be sent to H.M. Consul, British Consulate, 24 Rue Lambert-le-Begue, Liège, Belgium.

Northern Irish Parliament Buildings.

A council meeting of the Royal Institute of the Architects of Ireland has been held at Dublin under the presidency of Mr. Lucius O'Callaghan. There were also present Messrs. Louis F. Giron, R. M. Butler, A. E. Murray, J. H. Webb, F. Hayes, P. J. Lynch, G. P. Sheridan, T. J. Byrne, F. Batchelor, and H. Allberry, honorary secretary. Correspondence with the R.I.B.A. was read with regard to the appointment of architects for the design of the Northern Parliament and Government buildings. It was resolved that an expression of the council's dissatisfaction with the procedure adopted by the British Institute be forwarded to the latter body, and that a request should be submitted for a list of the names of architects practising in Ireland which the president of the British Institute had submitted to the First Commissioner of Works. The draft report of the council for the past year was read by the honorary secretary and adopted. The honorary treasurer stated that the balance on hand was much larger than at this time last year. Messrs. F. Batchelor and A. E. Murray were elected scrutineers of the ballot for council for the year 1922.

The Late Mr. G. C. Ashlin.

The death is announced at Killiney of Mr. G. C. Ashlin, architect, at the age of 84. He was born at Carrigrenane House, Co. Cork, and was educated at St. Servais, Liege, and at Oscott College, Birmingham. He served articles to Mr. E. Welby Pugin, and was a student at the Royal Academy, 1858–60. He was in partnership with E. W. Pugin from 1860 to 1868. He was a partner in the firm of Ashlin and Coleman, of Dublin, architects.

Architects and Smoke Abatement.

Speaking at the annual dinner of the Manchester Society of Architects, Sir Henry Miers, the Lord Mayor, said that in his work with regard to smoke abatement, and during his two years' chairmanship of the Housing Committee, he had received most valuable advice from architects. Mr. A. W. Heanings, the President of the Society, occupied the chair, and among those present was Mr. Paul Waterhouse, P.R.I.B.A.

Employers and Disabled Ex-Service Men.

Now that the granting of Government contracts is dependent, save in very exceptional circumstances, upon the name of the firm being on the King's Roll, a review of all the undertakings that have been in operation for a year or more is to be carried out by the Ministry of Labour, who have decided to ask that certificates under the scheme should be renewed for a period of two years instead of one. The names of 29,000 employers of labour, covering approximately 365,000 disabled ex-Service men, are now inscribed on the Roll. At present 25,000 disabled men are being trained under the Ministry of Health Scheme in training centres and Government instructional factories, and there is a waiting list of 25,000. Those who have completed their courses number 50,000. It is hoped that every firm whose name is not upon the King's Roll will take an early opportunity to enrol.

Railway Reconstruction and Housing.

The National Housing and Town Planning Council in their weekly record state that, in the opinion of leading housing and town planning experts, the rapid development of public opinion in support of great schemes for the reconstruction of existing tubes and suburban railways in and around London, renders of special urgency the immediate discussion of several points of fundamental housing and town planning importance. With a view to securing that the various aspects of the subject and new proposals for the treatment of a problem shall be fully considered, the Council and the Garden Cities and Town Planning Association are now giving close consideration to the preparation of a series of definite proposals to be submitted at an early date to the Government and members of Parliament for the Home Counties.

Trade and Craft

Gifts of Distinction and Utility.

There is a fine selection of well-designed and beautifully made craftwork in "Gifts of Distinction and Utility," a tastefully produced and profusely illustrated booklet, just issued by the Birmingham Guild, Ltd., of Birmingham and London. In copper there are hot-water jugs; in brass, table standards, ash trays, and candlesticks; and in bronze, flower pots, mirror frames, inkstands, waiters, coal scuttles, and footmen. There are also silver-plated and all-enamel ash trays, wrought-iron fire tools and dogs, nursery and orange trays, Lygon table glass, and regimental crests. All the articles illustrated, any one of which would make an admirable and very acceptable Christmas gift, may be inspected at the showrooms of the company, 28 Berners Street, W.1. The company, established in 1894, employs over 300 skilled craftsmen.

Iron Portland Cement.

The Ironite Company, Ltd., of 9 and 11 Old Queen Street, Westminster, S.W.1, have sent us the following communication :—

"The prominence now being given to the investigations with regard to Iron Portland cement prompts us to call the attention of readers of THE ARCHITECTS' JOURNAL to the fact that the only similarity between "Ironite" Brand cements and Iron Portland cement is in the name. Iron Portland cement is prepared from the waste product of the blast furnace, viz., slag, and we consider it unfortunately named. "Ironite" Brand cement (flooring) is a distinctive product, a metallic intensifying matrix which is added to good Portland cement and closes all voids and gives the surface a dense, tough, wear-resisting finish. "Ironite" Brand cement (waterproofing) is a specially prepared compound with a chemical and mechanical action for use without Portland cement as a waterproofing for coating buildings. We think it will be agreed that the almost universal use of "Ironite" Brand cements justifies this endeavour to avoid confusion especially as we are the owners of the registered trade mark 'Ironite.'"

Special Materials for Decorators.

Messrs. William Harland and Son, varnish, enamel, and fine colour manufacturers—a firm with over 130 years' experience in the industry—have issued a small brochure "Special Materials for Decorators," the purpose of which is to give special prominence to a few of their special materials. Particulars and specimens are given of scumble stains in a variety of shades—mahogany, green, dark oak, rosewood, light oak, and walnut; and of "Red Extra," a fast red, particularly suitable for sign-boards, shop fronts, pillar boxes, etc., and in all exposed situations. There is also much concise and useful information with regard to Harlania, an excellent base for enamels and paints; preparation and leadless whites; pale signboard varnish; writers' gold size; white bath enamel; egg-shell gloss enamel; front door copal varnish; liquid driers and sealers; petrifying enamels; sanitary flat enamel; enamel filling composition; and varnish remover. Of the many varnishes used by the decorator, those for church seats perhaps demand the greatest care in selection. For this purpose the firm have for many years manufactured a special varnish, which is claimed to dry with a fine tackless gloss and a surface as bright and hard as glass. Messrs. William Harland and Son, whose London address is Merton, S.W.19, have branches in Paris, Milan, Brussels, Buffalo, Sydney, Melbourne, Toronto, Cape Town, New York, etc., and bear the honour of "By appointment to His Majesty the King."

Latest List of New Inventions

Latest Patent Applications.

30916.—Child, E. H.—Casement, etc., windows. November 19.

30609. — Cocking, W. C. — Floors. November 16.

30761. — Gaymer, J. — Buildings. November 17.

30568. — Selwood, V. G. — Wall tie. November 16.

30781.—Wallis, F. G.—Insulating, etc., walls and slabs. November 18.

31493.—Aldwinckle, H. J.—Walls. November 24.

31398.—Lechat, E. — Moisture - tight building blocks. November 23.

31738.—Malmerona, E. C.—Method of covering walls, etc. November 26.

31073.—Roberts, J. C.—Rubber roofing, partitions, etc. November 21.

31074.—Ross, H. I. M.—Metal framework and concrete slabs for building construction. November 21.

Specifications Published.

170884.—François, A. J.— Reinforced concrete linings for mineshafts, tunnels, underground roadways, and the like.

170962.—Gabriel, E. V.—Building beams or slabs.

170963.—Scommazzoni, V.—Sheet metal roofing.

152028.—Bohn, I.—Cutting out of stone slabs or bricks from solid rock.

149997.—Diard, F. E. M.—Supports for bridges, cranes, scaffolding, and the like appliances for lifting, carrying, or sustaining loads.

150326.—Weithaler, A.—Process for the production of polished slabs and moulded articles from a cement stone composition.

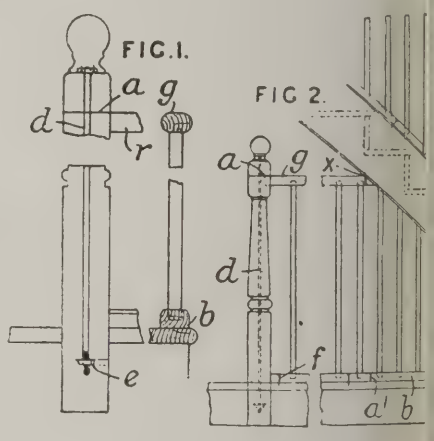
171225.—Heaven, F. H.—System of concrete hollow-wall construction.

156804.—Cavey, A. T.—Bituminous roofing.

Abstracts Published.

170084.—Roofs.—Mr. T. Furniss, 72 Ashbrow Road, Sheepridge, Huddersfield.—Roofing slabs, preferably corrugated and reinforced, are joined by caps of T-shape having a bulb at the bottom which fits into adjacent grooves in the slabs. The bulb is formed by bending a strip of sheet metal, preferably lea round a wire, the ends of t strip being then folded to for flaps and beads which may stiffened by wire insertion Asbestos string or packing m be placed beneath the ca Alternatively the bulb may formed integrally with the c or by providing flaps which a folded round the wire. T upper ends of the slabs ha hook bolts for attachment the purlins.

169798.—Balusters and railings.—Gra E., 132 Amesbury Avenu Streatham Hill, London.—R lates to a method of renderi balusters removable by formi the hand-rail *g* in two parts a removably securing one part the next flight at the point The balusters are secured to t hand-rail *g* and to a second r *b* which is detachably secur to the stairway by screws *f*, joint *a'* being made betwe the movable and fixed parts the rail *b*. To allow this part the balusters to be removed an entity, the part *r* of the han rail near the newel is removab attached thereto and the new is provided with a joint *a* on t level of the hand-rail, an ir rod *d* secured to the knob pa sing through the newel a



being screwed into a nut *e* in t body thereof. When only pa of the hand-rail is to be r moved, a rod is carried by t end remote from the newel a drops into a hollow balust secured to the fixed part of t rail *b*. Where the baluster do not admit of this treatment, t two portions of the hand-r are secured by a screw-plate a clamp. The method may al be applied to iron stairways railings, the hand-rail or upp bar carrying the balusters railings being provided at ea end of the removable porti with rods which pass in hollow uprights. The baluste or railings fit into holes in t stone stairs or in a stone kerb

The above particulars are specially prepared Messrs. Rayner & Co., Registered Patent Agents, 5 Chancery Lane, London, from whom readers of t Journal may obtain all information free relating patents, trade-marks, and designs. Messrs. Rayner & will obtain printed copies of the published specificati and forward on post free for the official price of 1/- ea.

nesday, December 28, 1921. Vol. LIV. No. 1408

THE ARCHITECTS' JOURNAL & Architectural Engineer

With which is incorporated "The Builders' Journal"



HOUSES ON THE SHERWOOD ESTATE, NOTTINGHAM.
W. A. KNELLER, ARCHITECT.

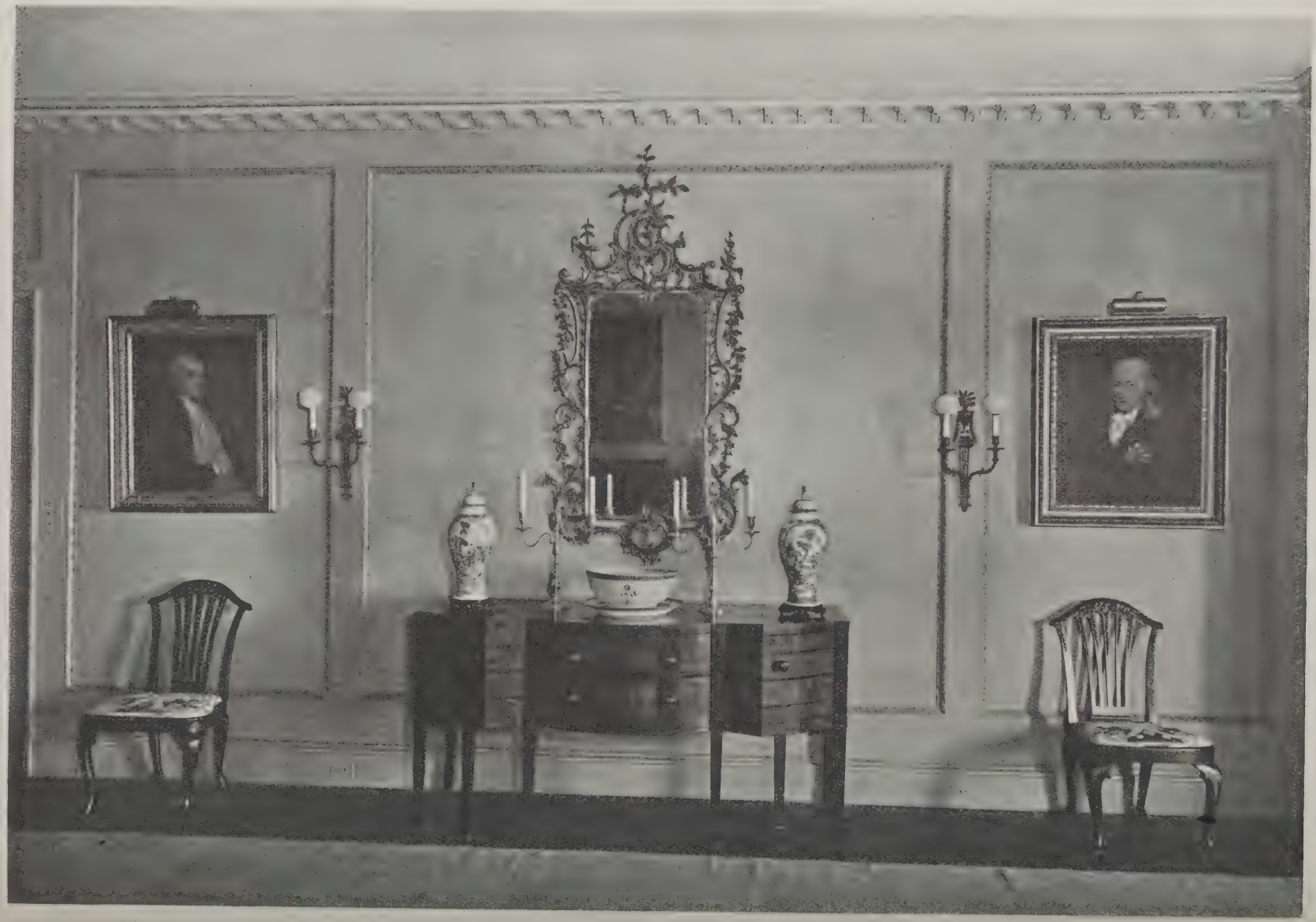
(*See article on page* 768.)

27-29 Tothill Street, Westminster, S.W.1.

Modern American Architecture.

33.—Interior from Residence of Mr. Charles H. Sabin, Southampton, Long Island

Cross and Cross, Architects



The architects have achieved an interior of much refinement by means of the interaction of complementary shapes. Square and oblong, upright and horizontal, are mutually responsive; and the ornate frame of the mirror enriches and unifies the scheme, redeeming

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"The Designers of Buildings"

WHO are they, forsooth? Who knows, and who cares? Not the man in the street, nor yet the man in the Club. Why this contemptuous neglect from the Nobodies and the Somelies also? Let Mr. W. J. Locke explain, with his uality of perspective" and his facile pen. "Between the blic and the architect, unfortunately," he writes, "yawns reat gulf from which arises a strange mist. The most brant man sees a picture, and he knows that some man painted it; he hears a piece of music, and he knows t some one man has composed it; he reads a book, and knows that some one man has written it. He sees a at building rear itself, stone by stone, at the corner of miliar thoroughfare, and it never enters his silly head realize that some one man has designed it. The very d 'architect' does not occur to him. I know re: namely, that if you asked any sixty men lunching at ordinary London club to write down the names of six inguished architects, not more than two or three could it." These forcible and "ower-true" sentences occur in Foreword which Mr. Locke has contributed to a book Mr. L. Cope Cornford, who also laments the apathy of public towards architecture and the architect, and nds his book as a corrective. He makes a really gallant rt to awaken curiosity about the designers of our build-s. He has adorned his book with a series of excellent traits of the mighty men of old—Inigo Jones, Sir Chrisher Wren, Sir William Chambers, Sir John Soane, Sir rles Barry, Sir George Gilbert Scott, Charles Garnier, ncis Cranmer Penrose, Alfred Waterhouse. The mere nes (and especially the titles!)—which are, or should be, sehold words in every family having the slightest pre-sions to refinement—should convince the commonalty t surely there must be something in architecture, after ! It is largely, but by no means solely, because of s peculiar sentimental effect of a title that we are ays glad to see one bestowed on an eminent architect. the all too rare occasions when an architect receives a ghthood, it is many chances to one that he has richly erved it, and has not obtained it "on carpet considera-ns," as they say in "Twelfth Night." Moreover, there many architects—half a dozen names of living archi-ts of eminent accomplishment who have been strangely lected in the Birthday and New Year honours lists rise tantly and spontaneously to the mind—who have well ned, but have not been awarded, this covetable distinc-n—have been passed over in favour of some successful desman or wealthy civic dignitary whose sole claim has n a handsome donation to the funds of the political ty that happens to be in power.

But the bestowal of a title on an architect is always an phatic and usually a startling reminder to the public, not t the recipient is merely, if at all, wealthy, but that he s really done something which the Crown delights to nour, and what that something is the public begins at e, though it be but languidly, to inquire. Hence a title towed on an architect is not merely an honour to a rson, nor even to the Profession he represents. It is an honour to an art, and it has considerable effect in promoting esteem for that art, or at least in drawing attention to it through the rare accident of a practitioner's getting into the limelight.

What is the remedy for the public's callous neglect of the architect and his art? Architecture should be less impersonal; the architect should be less self-effacing. At No. 9 Conduit Street there seems to exist a musty old tradition that it is vulgar to advertise; to which the accepted repartee is, that it is foolish not to. That the Institute is breaking through this tradition, or is not obeying it with slavish literalism, its publication of Mr. Cope Cornford's book may be taken as affording an item of testimony. It may, however, only signify that the Institute is not bound by its own law on this point. Certain it is that the Institute advertises itself in many ways—as why should it not?—and Mr. Cornford's book is its newest and in many respects its most important adventure in that kind; for its object is propagandist—to make architects and architecture better known. In that object it should certainly succeed to admiration. It describes lightly but luminously the functions and operations of architecture, the architect, the Institute.

Of the Institute's history it gives what may be called an *esquisse*, rather than a finished rendering. It relates when and why the Institute was founded, on what lines it has developed, what objects it has set itself, and to what extent it has achieved them.

On the whole the record is one of which any institution might well be proud. One rises from the account with the profound conviction, always entertained, but now fully confirmed by irrefragable proofs, that the Institute is an invaluable national asset—and more than national: Imperial, and in a sense universal, for it spreads the knowledge and love of architectural art through the whole civilized world; and Art is what, in metaphysical jargon, would be called a "universal." The work of the Institute should be better known—not so much for the sake of the Institute or of its members, as for the sake of architecture; and Mr. Cope Cornford, himself an architect before he became a distinguished man of letters, has by no means forgotten his first love; he hymns her praises, not passionately and rhapsodically, but soberly, reverently, justly, in a manner to commend her merits to a rather apathetic and slightly cynical crowd, that refuses to see either architecture in building or art in architecture, and that entertains an utterly false conception of the Institute as a sort of glorified trade union rather than the *alma mater* of an art that is inherently noble and ennobling. This is by no means a review of the book, but a discussion and commendation of the object with which it has been written and published—that object, shortly stated, being to make the work of the Institute better known, and hence to heighten the public appreciation of architecture. Cordially we re-echo Mr. W. J. Locke's rear-word to his foreword: "I hope, with all my heart, that this admirable little book will, aided by the Press, do much to restore Architecture to the proud and regal position which she enjoyed in the days

of Michael Angelo and of Jacopo Sansovino." Which is exactly the right thing to say, could not be said better, and therefore needs no addendum.

More About the Threatened Churches

To the revived discussion on the threatened wholesale destruction of City churches, Mr. Arthur Keen, writing in his capacity of hon. sec. of the R.I.B.A., contributes an eloquent plea for their preservation. He is, of course, for the larger view that looks beyond site-values. Midday services, he says in effect (though these are not his actual words), are sufficiently successful to justify amply the existence of other places of worship, so why not adapt the threatened City churches to similar service? It is merely a matter of "adaptation to environment." To contend, as the advocates of destruction do, that the condemned churches are useless because they attract but meagre congregations, if any, is inept and feeble. Why not attract to them by some means a percentage of the hundreds of thousands of persons who densely crowd the City on week-days but leave it desolate on Sundays? If the Church would but take thought as to effective means of adapting itself to the modern conditions there would be no need to cherish the barbarous and sinister plot to destroy Wren buildings that are, æsthetically and spiritually, the City's chief glory and, collectively, its most characteristic feature. Demolish the City churches and occupy their sites with tall buildings of utterly un-English type, and you will succeed in degrading London to a feeble and spiritless copy of New York.

Cairo Hospital Competition

It will be seen from an announcement on a later page that in the preliminary competition for the Hospital and Medical School at Cairo, five out of the six architects selected to take part in the final competition are members of the Royal Institute of British Architects. This result, considering that the competition was open to the wide world, is, from the British point of view, most gratifying. It clearly proves that, in spite of the carping, croaking, and self-depreciation, in which they are peculiarly prone to indulge, British architects are, when it comes to an actual trial of skill, capable of holding their own against the most distinguished architects of foreign countries; for it is said that in this competition—the most important for years—the United States, France, Canada, and other countries were represented by some of their most eminent men. Vainglorious boasting is certainly detestable at any time or on any occasion, and British architects will not take the Cairo triumph that way, but merely as a slight relief from their customary habit of self-abasement.

Cheap Cottages Indeed!

Cottages still go cheap. At least, they did last September! A correspondent kindly sends us a newspaper bearing that remote month's date, and containing an account of the sale at remarkably cheap rates of several lots of freehold property. A pair of cottages "with large gardens" were sold for £100, and a pair of thatched cottages for £80! It might have been suspected that in each instance a nought had been omitted from the grand total, but as the account states further that certain other property was withdrawn, those extraordinary figures are by inference confirmed. Essex is the county in which these cottages are situated, and the low prices are so strongly reminiscent of those that prevailed in the days when Arthur Young and William Cobbett took their Rural Rides as to excite an uneasy glance at the heading of the newspaper to see whether it was dated for an earlier century than ours; but no—1921 is the date. It would not be surprising, however, to hear that the cottages themselves were contemporary with Cobbett!

Changing Piccadilly

For the next year or so Piccadilly will be watched wit intense interest, not untinged with regret. It is to see grea changes. Devonshire House is going. Its gates hav already gone—only across the road, it is true; but the removal synchronizes with the initiation of changes s numerous and so drastic that Piccadilly will, in a shor time, present a strange aspect to the spooks of the dandie and fine dames who made it, in Georgian and Regenc times, a fashionable "quizzing-ground." "Wolseley Mo tors" have already given the district a more dignifie character than that; and the new premises of Swan an Edgar may be confidently expected to follow so stately a example. The Burdett-Coutts mansion at the corner o Stratton Street will probably resign its site at no distan date to colossal business premises of some kind. Betwee this fine old mansion and Hyde Park Corner there is a hug steel framework that surely will be filled ere long. The ol Vestry Hall will give way to banking premises; and othe changes are said to be in contemplation; and Piccadilly is therefore, about to provide much work for the architec and the builder, and incidentally to undergo a transforma tion that will make it unrecognizable even to "Old Q.," wh lived there continuously from 1790 to 1810, and wa buried in the chancel of St. James's Church.

The Taller Buildings Controversy

The proposal to relax the London by-law as to the heigh to which buildings may go finds no favour with Mr. Willian Pite. In a letter to "The Times" he marshals some stron arguments against the proposed change. This one woul suffice if there were no others: "To our mammoth city," he writes, "with its disorderly plan and deplorable winte climate, the maximum of light and air is essential, not onl in dwellings, but in crowded offices and warehouses, int many of which at present the sun seldom, if ever, shines." Only too true. It is not only bad housing that produces a "C3" population and congests our hospitals, sanatoria and asylums for the blind. City warehouses, offices, and "commercial buildings" contribute an enormous propor tion of "cases"—even more, we will venture to say—than do the insanitary dwellings of the workers. As the matte already stands, health and eyesight are sacrificed whole sale to frantic and reckless efforts to "get the most out of" sites, and congested sites imply congested hospitals and asylums; but the Institute may be confidently expected to take a broad-minded, disinterested, humanitarian view of the situation, and to see to it that arguments savouring of cupidity are not allowed to outweigh the pleadings for health and amenity. As Mr. Pite epigrammatically puts it, "We may gain in height, but shall lose in health." On the other side of the argument, it is again being urged that "the subject carries with it important and far-reaching financial considerations. With the high cost of land and the high cost of buildings, building owners will hesitate to initiate enterprises which might prove unremunerative by reason of their inability adequately to develop their costly sites, or adequately to accommodate their extensive businesses." There is not much force in this argument. Site-owners would simply become more rapacious still if lease-owners' facilities for building were extended. No doubt taller buildings would be an excellent means of confining most of London's commerce, and incidentally much of its building work, within a narrowly constricted zone; but that effect is neither necessary nor desirable. There are plentiful and increasing means of locomotion; and the suburbs could have their trading centres enormously developed without any need for changing the by-law as to height. In making up their minds on this subject neither the Institute nor the London County Council is likely to allow itself to be led by "far-reaching financial considerations" into a hasty and an ill-considered decision, for both bodies know right well that considerations of health and amenity are even more far-reaching still, and of much higher physical and moral value. "A nation's health is a nation's wealth."

Dear Bricks—A Search for a Remedy

BITTER things have been said lately, harder things have probably been thought, concerning the present prices of building materials. Mutual suspicion and mutual recrimination have let › the dogs of war in the building trade, and the result ıavoc.

The causes are not far to seek. The public worm which hitherto paid the bill meekly, if not unprotestingly, has last turned, and is now, through the megaphone of the press, clamouring as loudly as a worm can do for some-dy's blood. Worse still, it has withdrawn its patronage m the tradesman whom it no longer trusts, with the y natural result that business is at a standstill. The l tradesman, to continue the metaphor, is suffering erely, and, exonerating himself, pours the vials of his ıth on his manufacturer, who in turn proclaims his own ocence, and blames his original source of supply.

The situation is absurdly reminiscent of Old Man Kan-oo and Yellow Dog Dingo, who, hungry and exhausted, on their tails in the middle of Australia "and each of m said 'That's your fault.'"

The atmosphere is admittedly unhealthy, and as far one can see little is being done to purify it. A battle words is no remedy. On the contrary, it tends to foster ill-feeling which is the curse of modern industrial con-ions. Commissions of inquiry, individual investigations, notoriously unsatisfactory, as anyone will agree who has rd the various sides of a case pleaded by equally able ocates. It is well nigh impossible to arrive at a just clusion, since half-truths are apt to lead to mental igestion.

Something, however, can be done to slay the bogeys of trust that are stalking through the land. Granted that tual confidence is the only sure foundation for a sfactory industrial system, it may be possible to trace reasons for the loss of confidence from which the whole mmunity is suffering, and hence to arrive at a tentative edy for the disaster.

The case of brick prices furnishes a very excellent ex-ple of the conditions that obtain in most branches of building industry at the present time.

A little while ago we were regaled to the point of nausea h lurid and disquieting accounts of the iniquities of the cklayer, of his inordinately large wages and inordinately all output. Attention has now apparently been diverted n him, and is concentrated on the bricks themselves. learn that the price is scandalously high, that manufac-ers are profiteering abominably, that dark Rings and sterious Combines exist, and, most especially, that it is the fault of the Government. The provincial press is rified and indignant, the London dailies are more politely cked, and all protest with such dignity, or lack of it, as heir wonted habit.

All this is very disturbing to the equanimity of the man the street, and it is not to be wondered at that, being iferously assured on all sides that he is not getting fair ue for his money, he decides to keep that money in his ket. Later, his slow British temper is aroused, he adds voice to the general din, and things are very unpleasant everybody.

If an immediate reform were effected, if a tangible ong were exposed and righted forthwith, one might mit that the tumult and the shouting were worth while, productive of great good. In point of fact, a great deal mud is stirred up, but never a fish caught, while incal-able damage is done to the pond.

It should not be necessary to emphasize the fact that we d no brief for the brick manufacturer, or, indeed, for any the accused parties. We would merely point out that ere conditions are so complicated, contributory causes so ny, it is impossible to saddle any particular portion of community with overmuch responsibility for present-ills. We are all in varying degrees tarred with the same brush. The taint of the days when nothing mattered, and public money flowed like water, is still upon us, and, since human nature remains unchanged, traders who can supply what the public needs are still inclined to extort the uttermost farthing for the same.

Specific charges are launched against the brick industry, especially that part of it which is in Government hands. The D.B.M.S. is variously accused of making a corner in material for the poor man's home, of shameless profiteering to the distress of the ratepayer, of keeping prices up by eliminating competition, and, greatest crime of all, of refusing to die decently, despite of the fact that it has long outgrown its usefulness.

When times were bad, and the industry was at a standstill, Government guarantees and Government forward contracts, made at the enormous prices then ruling, set it in motion once again, and the popular demand for materials wherewith to carry on housing schemes was satisfied. Had not the national housing programme collapsed all would have gone according to schedule, and Government stocks would have disappeared as quickly as they were acquired. Unfortunately, however, the demand for which the D.B.M.S. was prepared to cater prematurely vanished, and the Ministry was left committed to purchase quantities of bricks for which it could find no conceivable use. It is obliged, therefore, to force them upon local housing authorities, who immediately raise an outcry that they are being exploited for the benefit of Whitehall.

It must not be forgotten, however, that the local share of all housing expenditure is strictly limited to the penny rate, and that all losses incurred by the D.B.M.S. are ultimately borne by the very taxpayer who complains loudest of their refusal to cut their losses and retire from business. We understand that the D.B.M.S. is most anxious to do so, but does not feel justified in paying the disproportionate compensation demanded by the manufacturer as the price of a broken contract. The latter is, it appears, making a very good thing out of it. In a time of general depression his market is assured, and he seems inclined to hold the Ministry to its obligations.

Meanwhile, apart from these fortunate ones, business is very slack. The high price of Government bricks sets the pace for the open market, and competition as a price regulator has almost gone out of action. The building contractor and the building owner feel that they are being done, and orders are withheld.

The brick-maker, on the other hand, disclaims all responsibility for present prices, and points to the clean bill of health with which he emerged from the searching examination of the Profiteering Committee. He pleads with some justification that labour, transport, coal, are still three or four times their pre-war price, and emphatically denies the existence of the suspected ring. At the same time he admits that local associations regulate the prices for their various districts, and we might venture to suggest that if the price of common bricks alone is fixed by a combine of any description, this eliminates the possibility of any underselling, and tends to constitute a "Ring" that reduces the open market to a farce.

Labour costs are gradually falling, and brick prices are falling with them, but one hears, nevertheless, of yards that are working but thirty-five hours a week, of output reduced by 40 per cent.

Is it too much to hope that the many conflicting elements may agree to drop their differences, lay their cards upon the table, and co-operate for the common good? Might it not be worth while to drop all thought of profit for the moment, to reduce prices to the essential minimum, trusting to enormously increased output to make up the difference?

We have had an appallingly expensive war, and it is futile to expect increased prosperity yet awhile. Our first concern must be, whatever the cost, to set the machine once more in motion.

E. N. B.

Nottingham's Great New Housing Scheme

BUILDING work is being considerably accelerated on the big housing schemes which are being carried out at Nottingham by the Corporation Housing Committee, under the guidance of Mr. T. Cecil Howitt, D.S.O., A.R.I.B.A., the city housing architect. Seventeen estates and sites are in course of development by forty contractors, and further sites are under consideration. The official survey made in the latter part of 1919 showed that the city required during the following three years a total of 3,700 houses, and in the same year applications for tenancy were received from 2,027 persons.

In the early stages, the development of the sites and the house designs were placed in the hands of local architects, but in February 1920 the administration of the schemes and the development of future estates were taken over by the Corporation Department, under the direction of Mr. Howitt. Up to July this year contracts had been let for 1,304 houses, of which 1,229 had been commenced, and up to October 571 had been completed and occupied.

Work upon the houses has been c siderably retarded by the extreme d culty at all times of obtaining cert building materials, and by the shortag skilled craftsmen. In the early sta the scarcity of skilled bricklayers felt, but this was less acute than the d culty later of getting sufficient slaters tilers to roof in the numerous hou At a later stage the national difficu of the small number of plasterers in p portion to the men in other build trades was very much felt locally. T considerably delayed and is delaying



LAY-OUT OF SHERWOOD ESTATE. W. A. KNELLER ARCHITECT.

Modern Domestic Architecture. 32.—Houses on the Sherwood and Stockhill Lane Estates, Nottingham

W. A. Kneller, Architect for the Sherwood Estate, and W. R. Gleave, A.R.I.B.A., Architect for the Stockhill Lane Estate



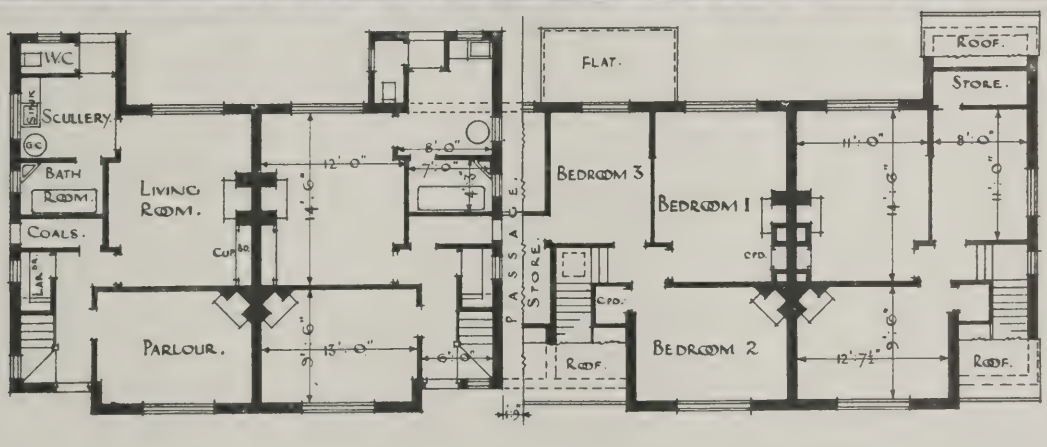


Fine old trees add to the picturesque appearance of the Sherwood Estate, which Mr. Kneller has laid out on the lines of a small garden city. All the Stockhill Lane houses have large gardens, and Mr. Gleave has provided for additional allotment spaces.

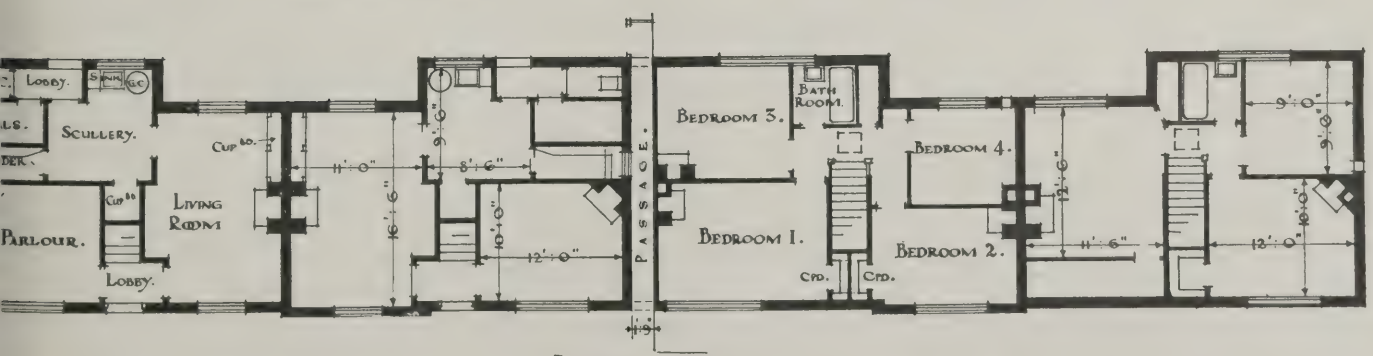
odern Domestic Architecture. 33.—Mansfield Road, Sherwood Estate, and Representative Types of Parlour Houses

W. A. Kneller, Architect





: GROUND PLAN : : FIRST FLOOR PLAN :



SCALE OF FEET.

10 5 0 10 20 30 40 50

GROUND PLAN FIRST FLOOR PLAN

All the Nottingham houses have been so designed as to obtain the maximum of light and space within the limits imposed by Government restrictions. Blocks of four or six houses have been found as a general rule the most satisfactory.

letion of many houses on all estates, he trouble is being overcome to some it by the introduction of composition l ceilings, fixed by joiners, and the sion of the ordinary lath-and-plaster . The principle of getting as many actors as possible to build small bers of houses has proved much more factory than allotting large unmbers ie or two contractors.

great deal of interesting information regard to the general housing prin- s aimed at, and the proposals for, the progress on, each particular site ven by Mr. Howitt in a very able view of the First Two Years' Progress ie Housing Schemes in Nottingham r Part III of the Housing and Town ning Act 1919." Through the esy of Mr. Howitt we are able to sh some typical illustrations of the ut of the sites and the house designs, her with the following useful particulars with regard to the schemes generally.

The boundary roads on the majority of the sites, and the new town-planning roads on the Sherwood Estate, have settled to a great extent the general lines of main heavy traffic routes. Site planning has therefore evolved itself into a question of the provision of minor traffic routes across the site, and a minimum amount of roads at satisfactory gradients to feed adequately all the houses, and the adaptation of the natural levels of the site to their best advantage to form the most satisfactory plots for houses and gardens as regards aspect, and the grouping of the houses in suitable blocks to suit the levels.

The adaptation of the lay-out design to suit every existing tree has been fully considered in detail, and economy of road construction is fully demonstrated in all the lay-out designs where narrow drives and short culs-de-sac supply a large quantity of the houses in proportion to the amount of road surface used.

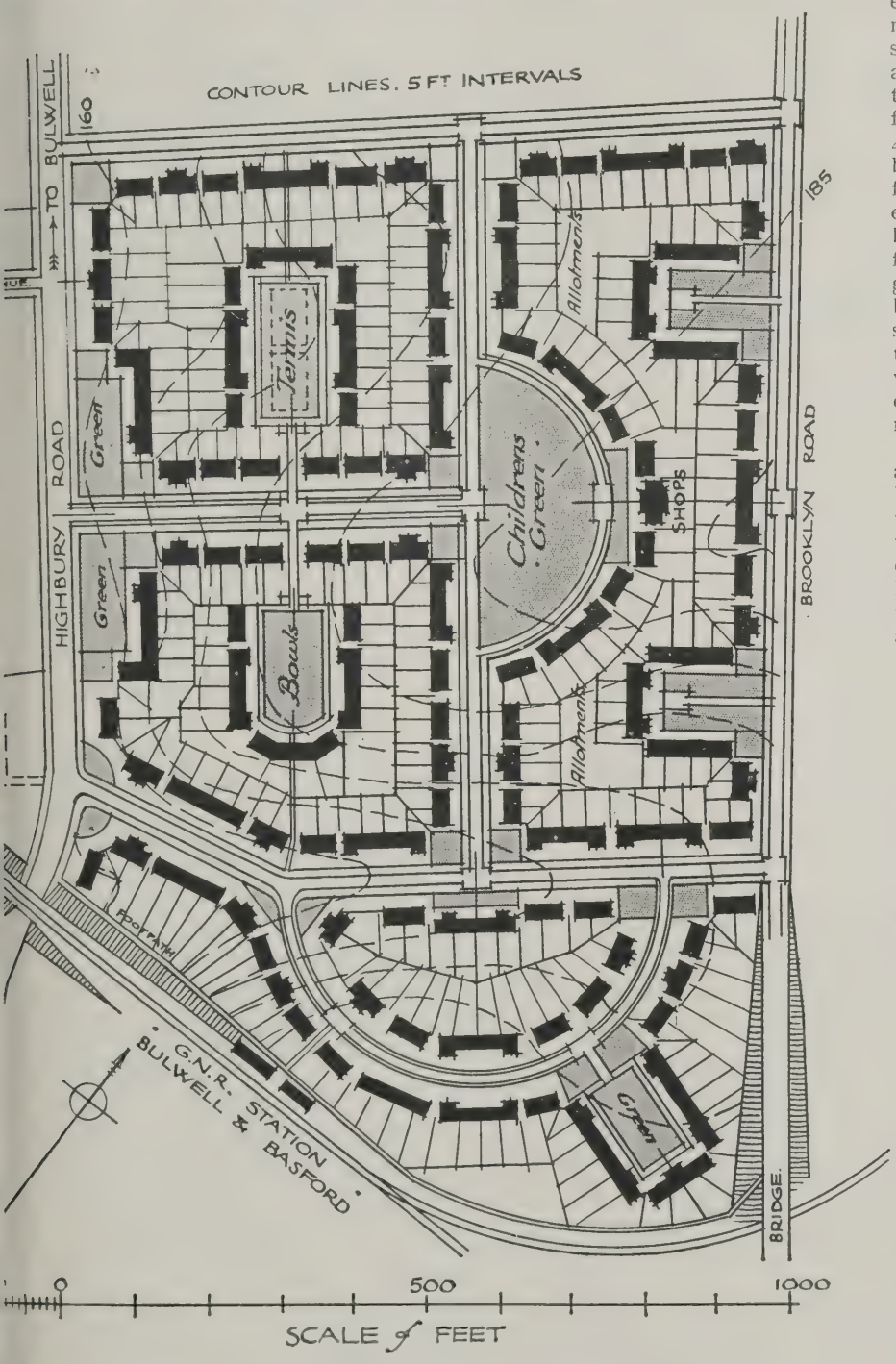
The limitation of twelve houses to the acre and a minimum distance of 70 ft. from the houses across the road have been the keynotes of the success in obtaining satisfactory groupings of the houses, and it has given a satisfactory basis for obtaining reasonable health and comfort for the tenants. At the same time, however, it is considered that the amenities of the schemes could still have been maintained at a somewhat less cost if the standard of the number of houses to the acre had been slightly increased. Roadways of a much lighter and cheaper construction than usual have been essential to deal with a limitation of this nature.

The special allowance of twenty houses to the acre in already developed areas is an excellent measure; and although the site and road expenses are generally in excess of those of a new estate development, a considerable number of small schemes have been developed under this allowance. On partly developed sites the houses have been based on a minimum frontage of 20 ft., with an extra width of 4 ft. for the side passages for access to the back. On new estates the minimum frontage is invariably 23 ft. to 24 ft., with extra width for the side passages. Numerous blocks of semi-detached houses generally fail to produce any really satisfactory grouping, but in some cases semi-detached blocks are essential. Blocks of four or six houses have been used to link together the general grouping. Blocks of houses with specially shaped plans have been desired at many points, but economy has made the introduction of these impossible.

A series of continuous small breaks is also ineffective; the houses, therefore, have been grouped in suitable numbers and the frontage line broken up. Subordinate roads have given way to culs-de-sac and enclosed greens, as in the tennis and bowls lawns on the Bulwell Estate. Where possible, these culs-de-sac and greens have an additional access footpath as well as the narrow drive. Full advantage has been taken to introduce special blocks of houses to terminate the vista along a road. Special treatments forming small shrubberies or greens have been used at the junctions of roads to avoid the more usual long and inartistic exposed flanks of the back gardens. Economy has restricted any really effective linking up of angle blocks, and in only a few cases has it been found possible even to do this with just a large-mesh lattice fence. Roads with fairly steep gradients have necessitated the building of houses in pairs of a special design, with a change in the floor levels of each house, and a stepped-up roof to avoid extravagant foundations.

One important centre is an excellent feature of any old village or ancient town. This idea has been developed in the lay-out designs, and is well illustrated by the circular green on the Sherwood Estate and the large semicircular green on the Bulwell Estate. These are the principal points of interest in the schemes, and they form an excellent position for special buildings, such as the maternity home on the Sherwood Estate, and the shopping centre on the Bulwell Estate.

Ample playgrounds have been provided for children, generally in the open spaces formed at the bottom ends of the gardens



LAY-OUT OF BULWELL ESTATE, NOTTINGHAM.
T. C. HOWITT, D.S.O., A.R.I.B.A., ARCHITECT.

in a large plot or group of houses. The smaller irregular spaces formed at the ends of the gardens in small groups of houses have been developed into allotments, to be rented by the adjacent tenants who are desirous of larger gardens. Special quadrangles have been arranged ready for development into tennis courts and bowling greens. With the exception of the Sherwood Estate, the various sites have not a very large acreage, with the result that special buildings are not very numerous. On the Sherwood Estate a school site and a maternity home site have been arranged, and small shopping centres have been designed there and on the Bulwell Estate.

Relaxation of by-laws as regards the width of purely residential roads has made possible the treatment of houses with reasonably wide frontages. In view of the nature of the traffic for which these roads will be used, considerably lighter construction has been employed, and expensive channels and curbs invariably saved. For the most important of these subordinate roads, metalled carriage-ways of 16 ft. with grass margins and gravel or asphalt footpaths on either side, the total widths of which are 36 ft.—or in a few cases 42 ft.—have been employed. In special cases where a somewhat more dignified road has been desired, as in the main central road on the Bulwell Estate, increased width has been added to the road by the introduction of shrubberies or wide grass margins and extra roadway trees. On the less important roads carriage-ways 14 ft. wide with grass margins and paved side-walks have been used. Where very little traffic is anticipated, a further economy has been effected on some of the last-mentioned roads by omitting the side-walks.

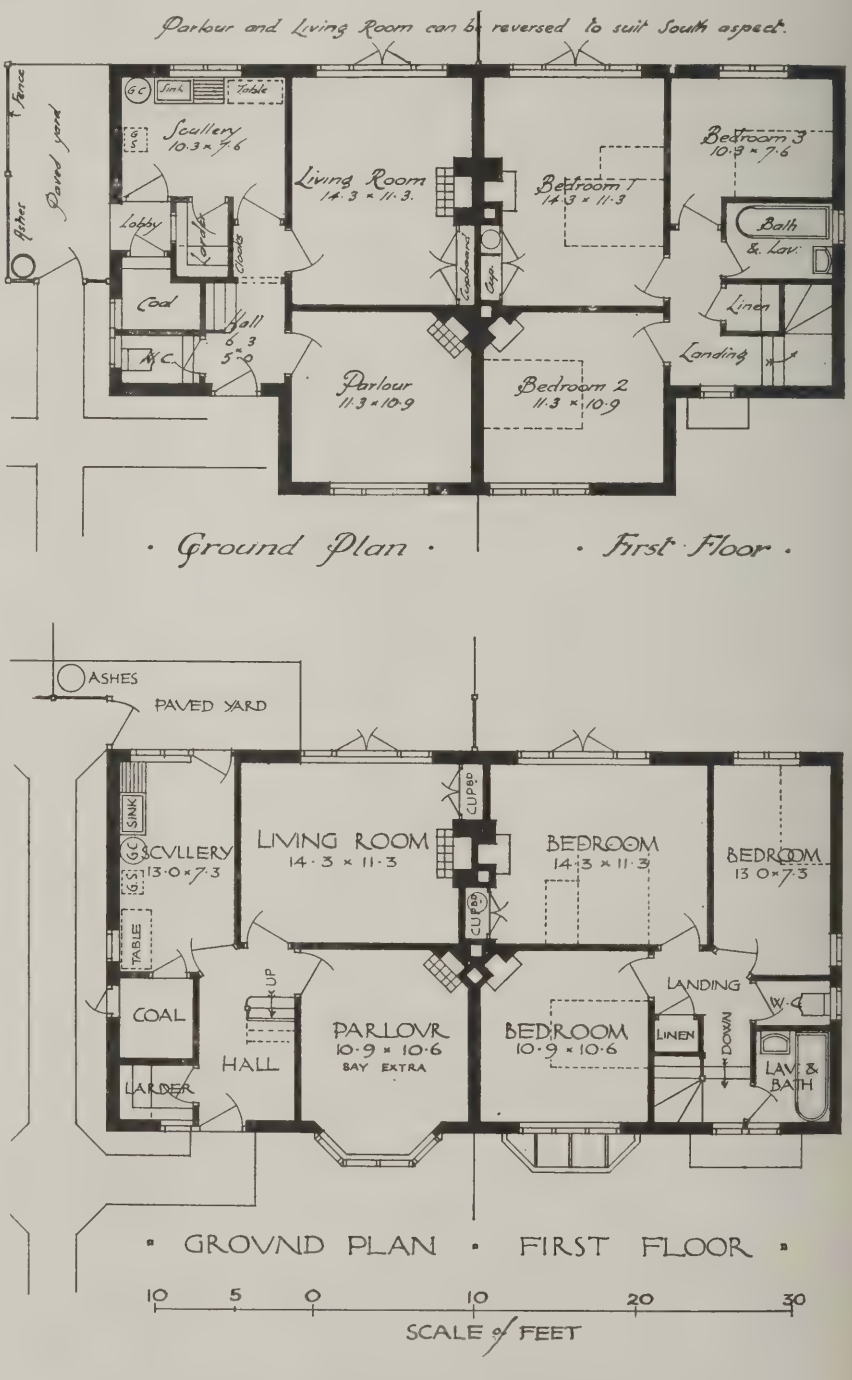
Culs-de-sac and small quadrangles have been arranged with metalled drives 8 ft. wide, having adequate turning points. These drives compare favourably with the gravel drives to large country houses, and they are quite adequate for the usual domestic traffic to twelve to twenty houses. Trees along the grass margins have been provided wherever possible, and at prominent and special points masses of shrubbery have been arranged. For roadways that have been developed on a hill-side, advantage has been taken of the existing ground by raising one footwalk slightly above the carriage level, thus giving a slope to the grass margin, and in this are introduced occasional flights of shallow steps.

In all cases the living-rooms have been arranged to obtain the maximum amount of sunshine, and this has given the basis for the whole of the house plan. Where possible, houses with an east or west aspect have been designed with a through room—that is, with one window to the front roadway and one overlooking the back garden, typical living-rooms obtaining the maximum amount of sunshine at all times of the day.

In view of the Government restrictions to reduce the floor areas of the living-rooms of all houses with parlours to 160 ft. superficial, it was essential that a great deal of attention should be paid to the designing of the best shaped room to come within these limits. A rectangular room with a minimum width and a maximun length has proved most satisfactory, 11 ft. 3 in. being considered the minimum width to suit furniture of a small character. The area of the floor space taken up by the fire-place and hearth is considerable, and where it has been possible to arrange the fire-place at the end of the room the result has been more satisfactory.

The planning of the fire-place to avoid any door draughts and to allow an easy chair on either side of the hearth has been a universal point in all plans. In plans where it has been found necessary to pass through the living-room from the hall to the scullery, the traffic lines across the living-room have been reduced to a minimum. In a large percentage of cases the living-rooms of the parlour-type houses have been fitted with a combined cooking range and open fire, instead of the ordinary range. Recessed cupboards with adequate shelves and double folding doors and drawers have been fitted in most of the living-rooms, but in cases where they are more suitable, open dressers with drawers and cupboards underneath have been arranged.

Experience has proved that the scullery should have, if possible, a floor area of 80 ft. superficial, and that every fitting and table should be fully planned, to avoid the common complaint of having to store the washing tubs and wringer in the small paved yard in the open near the back door. A scullery of any greater size encourages the idea of developing it into a small living-room—a very great defect in pre-war housing. Precedence has been given to the position of the table for the preparation of meals and the easy working of the scullery. The reduction of house labour has been reduced to the mimimum available under the financial allowances. Draining boards on either side of the sink have invariably been provided. Washing coppers have been provided in all the sculleries, and in some cases these are heated with gas, with an exhaust pipe for the steam and gas fumes carried out into the open and terminated with special ventilating blocks. A suit



PLANS OF PARLOUR-TYPE HOUSES AT NOTTINGHAM.
T. C. HOWITT, D.S.O., A.R.I.B.A., ARCHITECT.



COMPLETED HOUSES ON THE WELLS ROAD SITE. T. C. HOWITT, D.S.O., A.R.I.B.A., ARCHITECT.

position has been arranged for the cooker, and a point has been left with dequate gas supply pipe. There is le shelf accommodation, and in some s a special scullery cupboard is pro-d. In a few cases a cooking range been provided in the scullery and an barless fire in the living room, but idea has not been exploited to any t extent on account of the cost to the nts of having to keep two fires going ie house in winter. Where possible, window has been arranged overlook-the garden.

ie Government allowance of 110 ft. 20 ft. superficial for the area of the our is not large, but size is not its t value, and actual houses have ed that this can be made into a very room—quite suitable for carrying its purpose in the usual family life. ed, it is an excellent feature of the e, and 80 per cent. of the houses that being erected have parlours. A con-able amount of floor space is gained placing the small fire-place across an e of the room. The greatly increased of the room obtained by the intro-ion of a small bay window can only ppreciated in the building, as in the al house the effective size gained ars considerably greater than any rings express. Wherever possible, parlour has been arranged with an ct suitable for the late afternoon and evening sun.

l the houses have been provided with ntrance hall, and for the majority of plans, this has a floor area of 35 ft. to . superficial. All the halls are fitted hat and coat hooks.

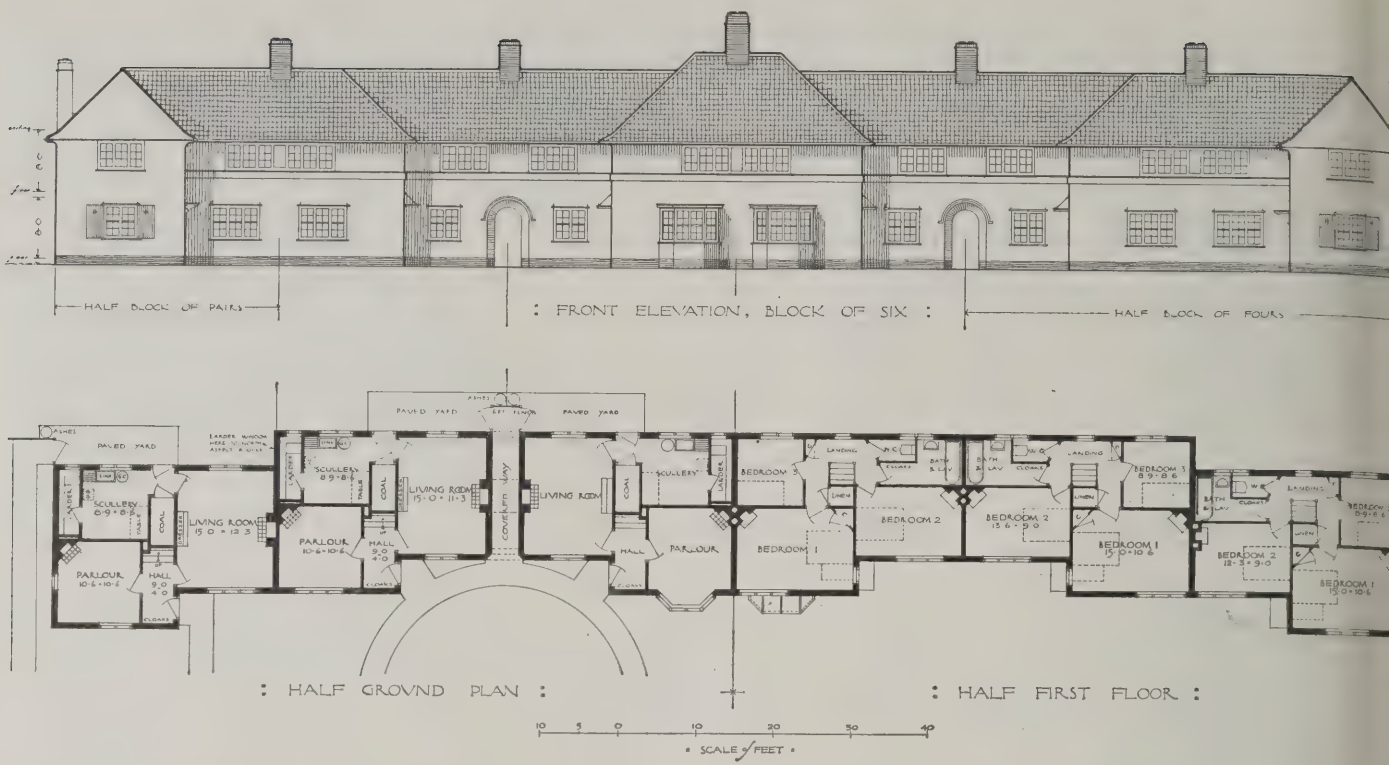
The Government restrictions, viz.: Bedroom No. 1, 150 ft. superficial; No. 2, 120 ft. superficial; No. 3, 65 ft. superficial, rendered it essential that the best proportioned rooms should be designed to comply with the superficial areas allowed. Actual houses have proved that the best bedroom should have a minimum width and maximum length, and a size approximately 11 ft. 3 in. by 14 ft. appears to make the most satisfactory bedroom No. 1, having regard to the position of the beds and furniture. The third bedroom with a floor area of 65 ft. superficial will accommodate one small bed, which is adequate for one adult; but it is not a really satisfactory room. Every effort, however, has been made to secure a floor area for the third bedroom of something approaching 90 ft. superficial. In the interests of economy the ceilings next the eaves have generally been slightly splayed, but all bedroom windows have a height of 6 ft. 6 in. from the floor to the top of the window, which gives the glass line height a minimum figure of 6 ft. 2 in. The two principal bedrooms have been fitted with fire-places, and the third bedroom has been efficiently ventilated by a special ventilator. A small percentage of houses have been erected with four bedrooms, and advantage has been taken to secure these in blocks where the ground-floor plans have a covered way or passage to the back door. Cost has limited the number of cupboards provided, but in all cases the best bedroom has been fitted with a built-in cupboard, fitted up inside as a wardrobe.

In the houses of the non-parlour type, the floor area required for three bedrooms and a bath room is considerably in excess of the ground floor area, with the result that in most of the non-parlour houses the bath room has been arranged on the ground floor. A ground-floor bath room approached from the scullery is not considered really satisfactory, and where possible, access has been gained from the entrance hall. The bath rooms have been planned at a minimum size of 5 ft. 9 in. by 4 ft. 7 in., and in a large percentage of the bath rooms lavatory basins have been fixed.

The majority of the houses of the parlour type have been fitted with a circulating hot-water supply to the sink, bath, and lavatory basin, heated from a back boiler at the living-room fire. Houses of the non-parlour type have a hot-water supply to the bath from the scullery copper, or have a special gas hot-water heater over the bath to supply the bath and lavatory basin.

The positions of the water closets vary considerably, according to the types and aspects of the plans. Probably the most suitable position for these is in close proximity to the bath room, so that the two may be planned as one unit. In all cases the w.c.'s have a covered approach.

The larders have been planned with a eastern or northern aspect. Invariably the windows have been fitted partly as a hopper opening inwards, protected with fly-proof perforated zinc, and they are cross ventilated to an air grate protected with similar zinc. The larders have been fitted with an artificial stone bench, and ample rows of shelves. Larders with direct access from the scullery are considered the most satisfactory, but owing



A ROW OF PARLOUR-TYPE HOUSES. T. C. HOWITT, D.S.O., A.R.I.B.A., ARCHITECT.

to the aspect of various types this is not always possible.

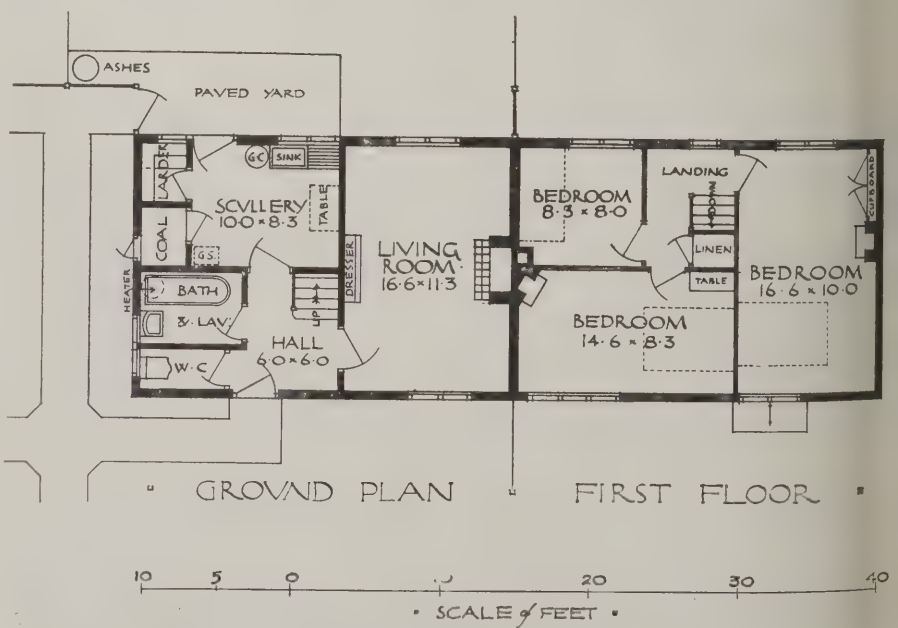
All the coal stores have been designed to store at least one ton of coal. These are approached from the scullery or through a covered outer lobby. Coal stores approached directly from the scullery are fitted with a small outside hatch for supply purposes and the floors have been made a step lower than the main floor level, the doors being fitted with sliding coal boards.

All the houses are fitted with a linen cupboard, and where practicable this has been warmed by the hot-water cylinder or hot-water pipes. In all the designs, every advantage has been taken of spare roof spaces, etc., to form box rooms, but in the interests of economy it has been found impossible as a general principle to provide a special space for these on all plans.

On the Sherwood Estate, the largest in the city, the numerous belts of fine old trees considerably help the lay-out design and picturesque appearance of the estate. The lay-out of the estate and the house designs were put to open competition. Twenty-five architects submitted designs, and the assessor, Mr. J. A. Gotch, F.R.I.B.A., F.S.I., of Kettering, who was nominated by the President of the R.I.B.A., gave his award in favour of Mr. W. A. Kneller, of Nottingham, who was therefore appointed architect for the development of the estate. Sites have been reserved for a secondary school, a maternity home, and a liberal supply of small playgrounds and allotments, in addition to the normal provision of a good-sized garden for each house. At a later date it was decided to develop the strip of land on the northern flank of the estate (next to the new Valley Road), as a large recreation ground. The estate will accommodate approximately 1,100 new houses.

The lay-out of the Highbury Road, Bulwell Estate, has been prepared by the Corporation housing architect. The roadways on the boundaries of the site deal





NON-PARLOUR TYPE HOUSES ON THE BULWELL ESTATE.
T. C. HOWITT, D.S.O., A.R.I.B.A., ARCHITECT.

all the principal traffic, so that the opment of the site chiefly entails the ng of a minimum amount of residen- roads. A large semi-circular chil- s green has been arranged, and small rangle greens have been reserved for wling green and tennis courts. In to set the houses well back from the road, a small green has been intro- d on the Highbury Road front. le small shrubberies and roadway have been provided for, and an area been reserved as a small shopping e. The site will accommodate 313 es, of which approximately 75 per will be of the parlour type, and 25 cent. of the non-parlour type. The rity of the house designs of the ingham Corporation Housing Depart- t will be introduced on the site.

many cases, houses have been erected the external and party walls 9 in. , built with brick on edge—part w construction—bonded in Flemish l and finished on the outside face with nt stucco. In various designs 12 in. in. by 6 in. hollow terra-cotta blocks, hed outside with cement stucco, have used for external walls.

he question of economy has, of course, the greatest stumbling block in the le of the schemes. The costs of the ous types of houses as indicated on cost charts show a gradual rise in es up to the end of 1920, while sub- tial falls are also indicated on the chart 78). The cost of the houses is high, it will be readily seen that the general es obtained in Nottingham are con- rably lower than the average prices houses in other parts of the country, ng regard to the accommodation and ity of the buildings that are being ted.

very effort has been made to secure nite lump-sum contracts subject to as e variation as possible. Section 12/3 tracts of the Ministry of Health have exploited to a great extent, and these racts are only subject to any varia- in the cost of labour. Owing to nt falls and to the probable further in the cost of materials, however, racts of the above nature have been nged with a sliding scale for the cost materials. Advantage is now also g obtained on other earlier contracts re it was only possible to place these an "up and down" clause for both ur and materials. Contracts on the ciple of cost price plus a fixed profit e not been entertained, as in addition the complicated administration of e contracts, it is considered they are suitable for building work of this racter.

or some time past work has been con- rated on the question of producing onable housing accommodation at a of £500 per house, and it was found t the best way to attain this low figure he present day was to build houses of bungalow type. A scheme was there- prepared for a small self-contained up of twelve bungalows on the High- y Road site, Bulwell, and tenders were ted from suitable contractors who ld rapidly deal with this specimen up. The lowest tender received in il last was £497 per bungalow com- e, including all the necessary foot- hs, fences and drainage. The scheme races three type designs to suit the ious aspects, and the external dimen- sions of each type are exactly similar in order to standardize the roofing. The great disadvantage of excessive frontage required for bungalows has been consider- ably overcome by the introduction of detached bungalows placed end-ways on, thereby obtaining a reasonable average frontage for the whole group.

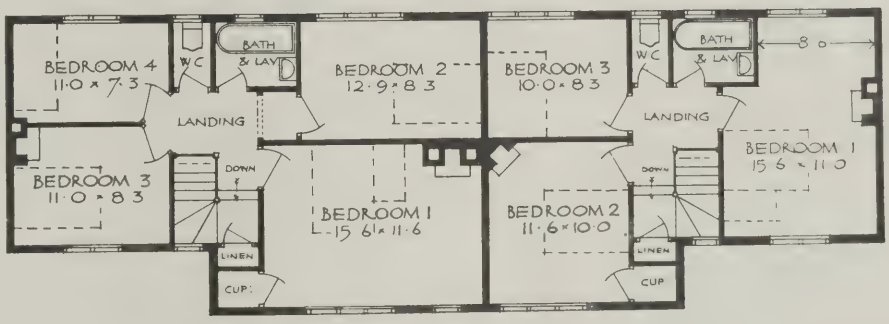
The accommodation is up to the standard allowed by the Government for a non-parlour house, and one of the three bedrooms has been suitably arranged so that it can be used as a parlour where only two bedrooms are desired. An entrance hall of a good size has been arranged in each type, and small built-in gas fires in the parlour and the main bedroom. The passage-ways through the living-rooms have been reduced to a minimum, and so arranged that they will not interfere with the easy chairs around the fire.

The living-room fireplaces will be fitted with "Interoven" or "Excelsior" ranges according to the class of tenant anticipated, and in either case there will be back boilers to give an adequate supply of hot water to the sink, lavatory basin, and bath. This is the first Nottingham type design where the w.c. has been placed in the bathroom; it is recognized that this is subject to a little criticism, but a good deal of expense has been saved by this principle.

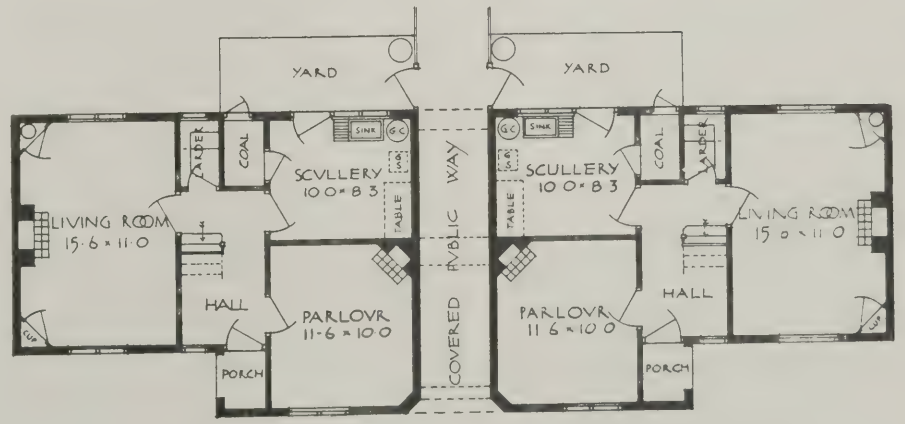
The foundations are to be constructed



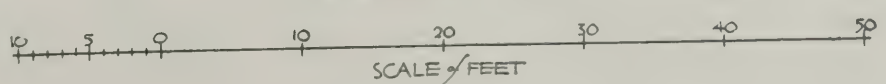
ELEVATION



FIRST FLOOR



GROVND PLAN



NOTTINGHAM PARLOUR HOUSES OF ANOTHER TYPE.
T. C. HOWITT, D.S.O., A.R.I.B.A., ARCHITECT.

in ordinary brickwork to the damp-course level, and above this point the outer walls are to be in 2 in. brick grip blocks reinforced with diagonal wires on either side. The outer surface is to be finished with 1 in. of cement stucco treated with a water-proofing material, and the inner surface with cement plaster. The stucco is to be finished with colour-wash and the plinth tarred. The internal partitions will be in 2½ in. concrete slabs, and the ceilings in plaster slabs. The roof is to be constructed on the purlin and boarding principle, and covered with felt and red asbestos tiles with a specially large lap necessitated by the somewhat flat pitch. The eaves gutters will be built up in wood and tarred on the inside. A large projection has been given to the eaves and verges to improve the general effect.

The "N.H." gas fires of the Davis Gas Stove Co. will be used, and specially built brick flues will be formed for these, terminating under the eaves or in the centre of the gables with a special extract vent brick. All the rooms not fitted with fire-places will be adequately ventilated with ventilating grates. The windows of the main rooms will have in addition to the usual side hung casements, top hung hoppers, and the living-rooms will have French casements that can be folded right back. In some cases the bathrooms will be fitted with a combined bath and lavatory basins, to economize the floor space.

An alternative estimate has also been arranged whereby the outer walls can be constructed 9 in. thick, consisting of a 4½ in. brick wall on the outside, a 1½ in. cavity, and a 3 in. plaster slab on the inside, the two thicknesses being secured together with galvanized iron ties. The internal partitions are also to be in plaster. The plaster slabs in all cases will be cast with a finished face and set in plaster. The cost of the bungalows in this alternative construction would be £519 each, all inclusive as before. For the moment the Ministry of Health has not given permission for the scheme to be proceeded with.

Law Report

Liability for Dilapidations Interesting Point.

Smith v. Burridge.

Dec. 7. Official Referee's Court.
Before Mr. G. A. Scott.

This was an action brought to recover possession of 11 Amhurst Road, Hackney, and damages for breach of covenant of a lease in regard to repairs. By it was raised a novel question as to the liability of a quarterly tenant (the wife of the lessee) for the repairs stipulated under the covenants.

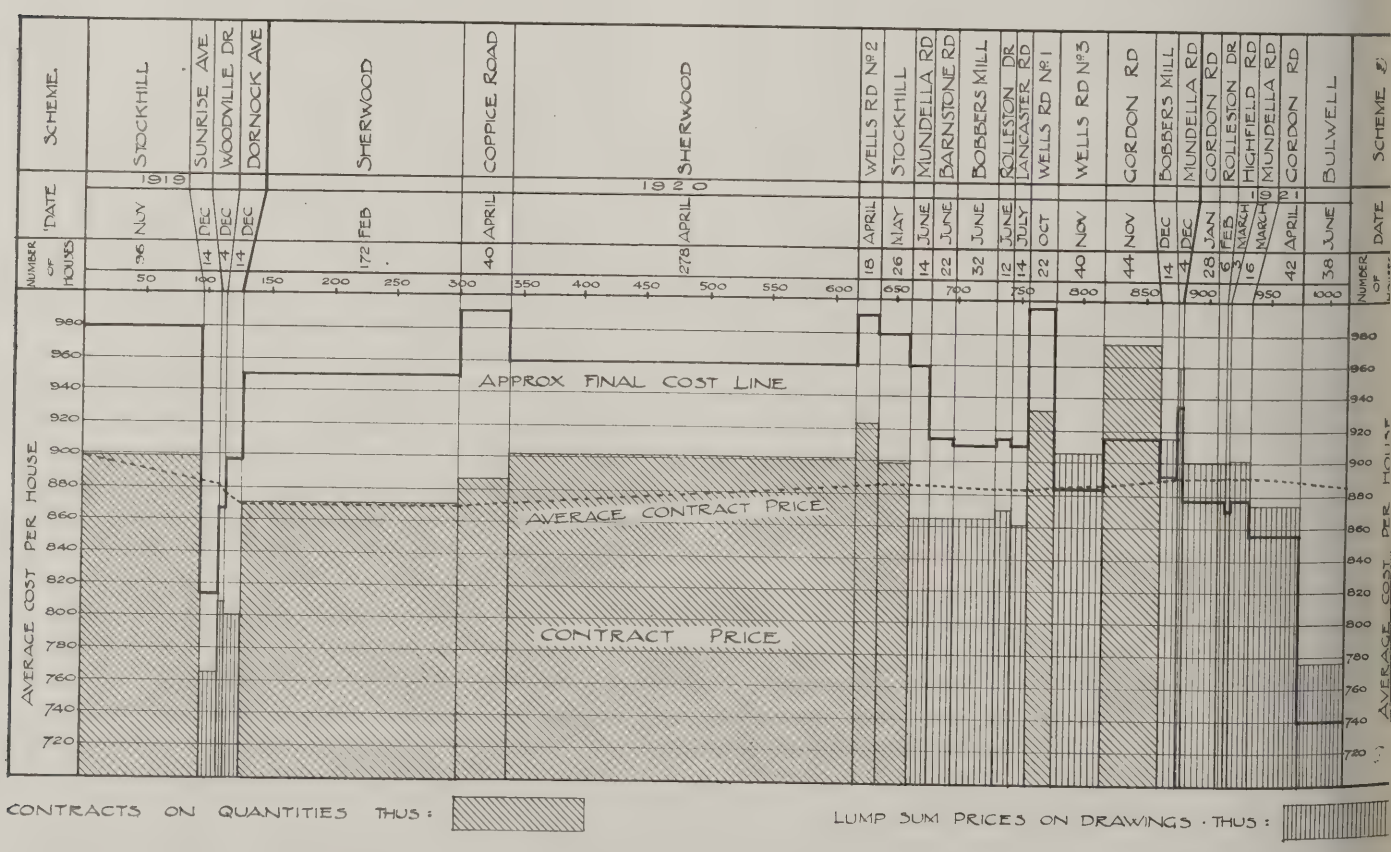
Mr. Raynor Goddard appeared for the plaintiff, and Mr. Cartwright Sharpe for the defendant.

Mr. Raynor Goddard said, in opening, that in 1902 a lease was granted by the then freeholder, whose reversion the plaintiff bought, to Alfred Burridge and Ernest Arthur Burridge for a period of twenty-one years, expiring at Christmas 1922, at a rental of £55 a year, and the present defendant was holding as a quarterly tenant on the terms of the lease so far as they applied to a quarterly tenancy. In 1906 the brothers Burridge dissolved partnership, and Alfred Burridge remained tenant of the premises. His trustees had disclaimed the lease. The defendant (Mrs. Burridge) came in under the disclaimer, the plaintiff's solicitor having agreed to allow her to remain as a quarterly tenant and on the terms of the lease so far as they w apply to her. Mrs. Smith, the plai bought the reversion in July 1 Mrs. Burridge remained in possessio a statutory tenant under the Act, after notice the rent was raised £13 2s. 6d. a quarter. She paid the e rent at Christmas and Lady Day. defendant said that no repairs had b done to the premises, and that she not intend to do any, and the sum quired to comply with the covena putting it at a very low figure, w amount to £160. The covenants, wh were of the usual character, contai nothing which was inconsistent wit quarterly tenancy. Mr. Stevens, plaintiff's surveyor, would tell the C the bad condition in which the house from neglect to repair.

Evidence was called in confirmatio counsel's statement, and the questio the legal position of the defendant, a quarterly tenant, in regard to the te of the lease, was argued at length counsel on both sides.

Mr. Raynor Goddard, after the us midday adjournment, said that he counsel for the defence had agreed t if the Referee held that the covenant applicable the plaintiff should have ju ment for possession with costs and rent to the present time also with co They further agreed that there should a stay of execution until March 25 if t rent due on September 29 was p within seven days, and if the rent for quarter ending December 25 and March with the costs was paid within twen one days of taxation.

The Official Referee, after further ar ment, gave judgment for the plaintiff the question of the applicability of covenants to a quarterly tenancy and plaintiff on the terms agreed by couns



GRAPH SHOWING THE COST, IN POUNDS, OF PARLOUR-TYPE HOUSES WITH THREE BEDROOMS

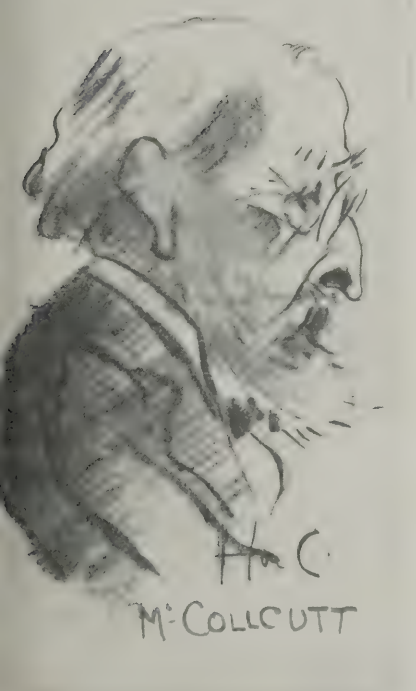
A Plea for a Broader Conception of Architectural Education*

By THOMAS E. COLLCUTT, Past-President, R.I.B.A.

WHEN a man retires from an active career and enters upon a time of comparative leisure, he should be teful for the feeling that his life's work s afforded him a deep measure of hap- ess, and that the inevitable worries l anxieties arising in an architect's ctice have become only a dim memory. should be grateful, too, for the con- ousness that, in the course of years, votion to his art has taken a deeper d on him; but he should not forget t he has yet much to learn, and that is, in fact, still a student. It is with s feeling that I approach my subject. prompts me, you may think, to be newhat harsh in my criticism, but the th of my conviction must be my ex- e for speaking with emphasis.

Let me begin with a word of warning. e architects have suffered and are still fering, perhaps more than any other ly of men, from the effects of war. e outlook is still gloomy. But, in te of this indubitable fact, students, l yet more students, are encouraged to er the schools. Mr. A. J. Davis, in a ent lecture, pointed out that in the le des Beaux-Arts the proportion of licants ultimately admitted is 10 per t.; those who do not pass have to enter ne other calling. I understand a large portion in our own schools are allowed take the full course before finding hitecture is not their bent. This is air to the student, it wastes years of time, and is a handicap on his future he schools have done him a wrong, and incurring a grave responsibility. Pray us face this fact squarely and honestly.

* Extracts from a Paper read before the R.I.B.A.





I would suggest that no student should be finally accepted unless he can show, on a short probation, that he has a peculiar native aptitude or tendency to architecture above any other calling. This "aptitude" should be ascertained by a body of examiners independent of the schools. Of course such an examination should be confined to architecture; steel construction and perspective colouring should not be considered.

What a rich store of valuable knowledge we should gain if this world could be revisited by the shade of some Ninevite architect, one of an amiable and generous nature, eager to disclose the mysteries of his early education, of his later proficiency, and of his success as a practising architect! If, being an enthusiast, he had, from his other world, kept an eye upon architects and their work from the remote ages, when he was actively engaged himself, until more modern times, what a fund of useful information he could give for the guidance of the student of to-day! Having a full knowledge of the attainments of the old masters—say, down to the age of Wren—what an astounding revelation it would be to learn that an exquisite skill in geometrical drawing is considered as almost an indispensable means to an end! No doubt he would behold the students with pity, fearing their minds would become unhinged from too much learning.

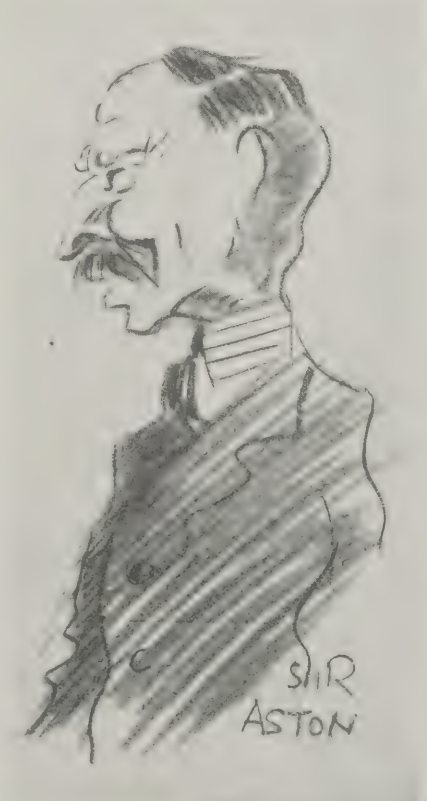
It seems to me that principals of schools are not aware that almost all architects are wise enough to seek the advice of experts in steel construction, and in many cases in sanitary and electrical work—always, of course, with the concurrence of their clients. Only the rudiments of these trades ought to be considered in the schools.

With your permission I will remark on a lecture on the theory of architectural education delivered in Liverpool and published in the August Journal of the R.I.B.A.

Let me preface any disparaging remarks. I may observe that I join with Professor Reilly in his admiration of the clearness of expression and the keenness of intellect with which the lecturer has expressed himself, but I view with grave apprehension the system of education which he advocates, which appears to be in vogue in many schools as well as in Liverpool. Throughout the suggested curriculum Architecture, as a Fine Art, seems to be almost a secondary consideration.

I would ask whether the schools are wise in requiring students to submit designs of palatial buildings—should not the subjects be mostly of a domestic or business or a civic character, and on possible sites, sites they would have to consider in real practice? Important public buildings are not of everyday occurrence. Certainly not with the grand and terraced open spaces shown in their designs, adding a fictitious value.

I have no quarrel with the making of beautiful drawings, *done truthfully*, to represent as nearly as possible the form that your thought, knowledge, and aspirations will take when your ideas become facts. I advocate water-colour sketching from Nature as an aid to realizing the beautiful. I began to dabble in the art when I was sixty-nine, and have since found instruction and delight in spoiling heaps of good paper; it has helped me to a greater love of Nature, and that in itself is a great gain. My one regret is that I did not take up sketching years earlier, thus acquiring something that would have led me to a



truer feeling of the beauty of this world—which may be also the heaven we hope to enter.

Discussion

Mr. John Slater, F.R.I.B.A., moved the vote of thanks to "his ever-young old friend," though he admitted that he was not able to agree with a great deal of what he had said.

The vote of thanks was to have been seconded by Sir Reginald Blomfield, R.A., and in his absence a letter was read from him. Sir Reginald said: Mr. Collcutt's charming if discursive paper is in the nature of the apologia of a man who all his life has been an artist, and who, like all true artists, has found that with advancing years and increasing knowledge his sense and appreciation of beauty is ever growing stronger. He has touched on certain defects in our present methods of education to which many of us are alive, the excessive attention to mere draughtsmanship and its tricks, the neglect of ordinary building construction, the search for the grandiose instead of the search for that exact adjustment of means to ends, and the elimination of the unessential, which is, after all, the real business of architecture. Mr. Collcutt realizes that three or five years' training is not enough, that not five or fifteen or any number of years is really adequate, because the true architect is always observing, always analysing, always endeavouring to reach the ultimate inevitable form that exists in idea, but is never realized in fact. But, this being so, one should not be too hard on our schools for failing to do the impossible; one would only suggest to them that they should study more closely what an architect has actually to do, and how best he can do it. I entirely endorse Mr. Collcutt's point that artists are born, not made. It has been the fallacy of this country since the days of the 1851 Exhibition that anyone can become an architect, or for the matter of that a painter or a sculptor, by setting out to be such and going through some sort of training. Our State-aided art training proceeds on this assumption, which accounts for the vast amount of incompetent work in which we abound. Some of us recollect the old days of pupilage when offices were largely stocked with the fools of the family. My own opinion is that the initial endowment of a creative artist—and if an architect is not that he is nothing—is much rarer than is supposed. One need not say with Nordau that all artists of genius are lunatics, but one should realize that those who possess the intellectual, imaginative, and emotional endowment which will qualify them to pull their weight in the community as architects are few and far between, and if this fact was realized in our schools there would be drastic changes in their organization and methods. I heard it said recently that our young men no longer care for the art of architecture, and are only interested in it as a business. I do not believe it. I am convinced that there is as much enthusiasm for this the noblest of the arts as ever; but if there are blacksliders, and if those who start with enthusiasm are quickly choked by the tares, let me commend them to the study of Mr. Collcutt's address, and learn from him something of that high enthusiasm which has sustained him so well through his long and very honourable career.

Sir Aston Webb, P.R.A., thought that the outlook for students now entering the profession was very gloomy indeed, and did not know where they were going to find work. It was, in his opinion, wrong to bring so many young men into a profession for which they often had no aptitude, and he blamed the schools for thinking more of their fees than of the prospective student's ever making a successful career.

Mr. Edwin Hall, F.R.I.B.A., and Professors Pite and Reilly also spoke, whilst a young student, "speaking on behalf of the students," said that they were satisfied with the schools, but not satisfied with the architects' offices they went into upon leaving.

Society of Architects Council Meeting

The following notes are from the minutes of the last meeting of the Council of the Society of Architects:—

Annual Dinner.—The annual dinner will take place at the Princes Restaurant on Wednesday, February 22, 1922. It will be open to members and visitors, including ladies, and the tickets will be 12s. 6d. each, exclusive of wines, etc.

Assistant Secretary. — Mr. C. A. Barman, of London, has been appointed assistant secretary of the Society. Mr. Barman was a student of the Liverpool University School of Architecture, and since then has gained experience as assistant to several leading London architects, his last engagement being with Sir Edwin Lutyens, R.A. Mr. Barman has also pursued some of the other arts connected with architecture, including journalism, and possesses other requisite qualifications for the position which he now holds.

Art and Literature Committee.—Mr. Percy B. Tubbs has been re-appointed chairman of this committee. The committee invites the co-operation of members in reviewing books, and will welcome donations of new or second-hand books to the library and contributions to the library fund. The re-cataloguing of the library has been completed, and the question of the issue of a revised catalogue is in hand.

Examination Committee. — Mr. L. Sylvester Sullivan has been re-appointed chairman and Mr. Howard M. Robertson vice-chairman of this committee. The examiners' reports on the two Membership examinations held in April and October 1921 under the new conditions show that out of the thirty candidates who completed the test, ten satisfied the examiners. Three candidates gained certificates of merit, and two certificates of honour, one of the holders of which received also a special award of twenty-five guineas as the best candidate of the year. The conditions relating to the Society's Design and other competitions are under revision.

Practice Committee. — Mr. Thomas Wallis has been appointed chairman and Major C. F. Skipper vice-chairman of this committee. The report of the Scale of Charges Sub-Committee on their meeting of November 30 with representatives of the R.I.B.A. was received. Certain points raised by the Society relating principally to bringing similar scales of other professional bodies and Government departments into line with the architects' scale have been discussed, but it has not been thought desirable to amend the scale at present. The question of housing fees being a separate matter has not been discussed in this connection. An invitation from the R.I.B.A. to appoint representatives to confer on the subject of the Regulation of Architectural Competitions was accepted, and Messrs. Thomas Wallis, H. M. Robertson, and the secretary, C. McArthur Butler, were appointed to attend the conference. The action of the secretary in barring the Tottenham War Memorial Competition to members pending the endeavour to obtain amendment of the conditions, was confirmed.

Finance Committee.—Mr. George Paine has been appointed chairman of this committee. The auditors' report on the finances for the year ended October 31, 1921, was received. It showed that the budget prepared by the secretary earlier in the year had been justified in every particular, and that the actual figures coincided very closely with those estimated. The auditors' report is to be submitted to the members at the annual general meeting on January 12, 1922.

Unification and Registration.—A report was received from the hon. secretary of the Unification Committee dated November 17, outlining the course of events since the last official reports had been published. It appeared from the present report that there was a possibility of the resumption of negotiations between the Conditions of Membership Committee and representatives of the Society in the near future.

Building Trades Parliament.—Arising out of the report of the November quarterly meeting of the Industrial Council and the report of certain delegates of the Society who had been in conference with representatives of the Industrial Council on the subject, it was decided to reduce the representation of the Society from four delegates to one, as from June 1922.

National Building Code.—From the report of the Society's delegates present at the conference on November 21, it appeared that certain resolutions of the conference had now been accepted by all constituent bodies, and that the President of the Society, Sir Charles T. Ruthen, had been appointed to represent the Society in carrying proposals further in approaching the Government on certain aspects of the case.

Annual General Meeting. — It was decided to hold the annual general meeting of the Society on January 12, 1922, at 8 p.m., to receive the Council's annual report and the auditors' statement of accounts; the meeting to be followed by a discussion to be opened by the President, Sir Charles T. Ruthen, on the question of "The Cost of Building," with the object of giving members of the Society an opportunity of expressing their views on the subject.

R.S.I. Congress, Bournemouth, 1922.—It was decided to accept the invitation to appoint representatives to the Congress next July, one of whom should be the Society's local honorary secretary, Mr. Harry E. Hawker, of Bournemouth.

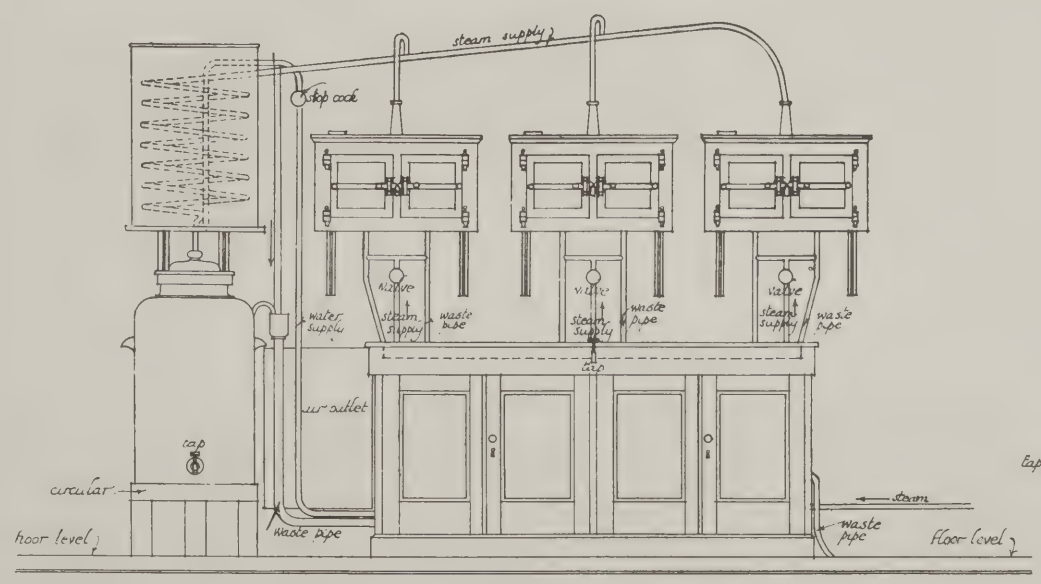
Building Trades Exhibition, 1922.—It was decided to co-operate with the arrangements for the Architects' Welcome Club at Olympia during the Building Exhibition in April 1922.

Practical Notes for Architectural Draughtsmen (Series II). Technical Schools and Science Buildings. 11.—Fittings in Inorganic-Chemistry Laboratory

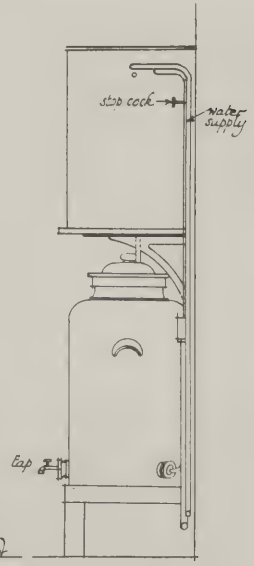
A. W. S. Cross, M.A., F.R.I.B.A., and Kenneth M. B. Cross, M.A., Architects

FITTINGS

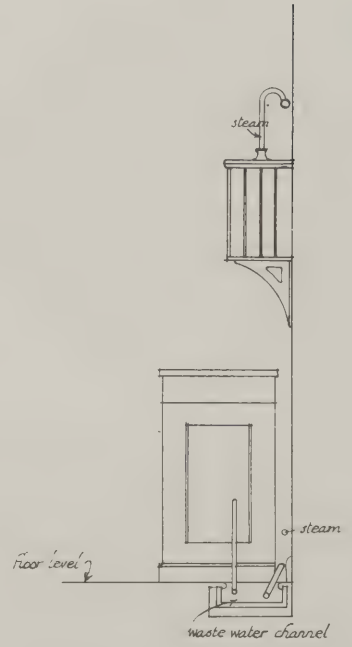
IN INORGANIC CHEMICAL LABORATORY



ELEVATION

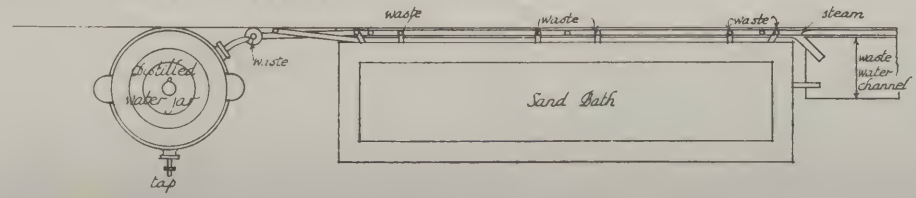


SECTION

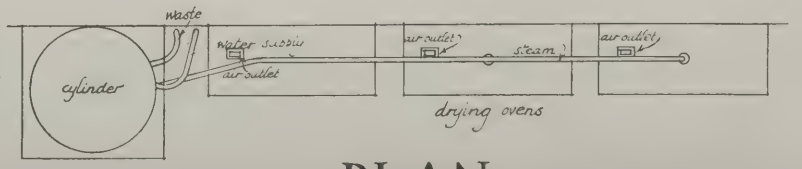


SECTION

SAND BATH
DRYING OVENS
DISTILLED WATER STORE



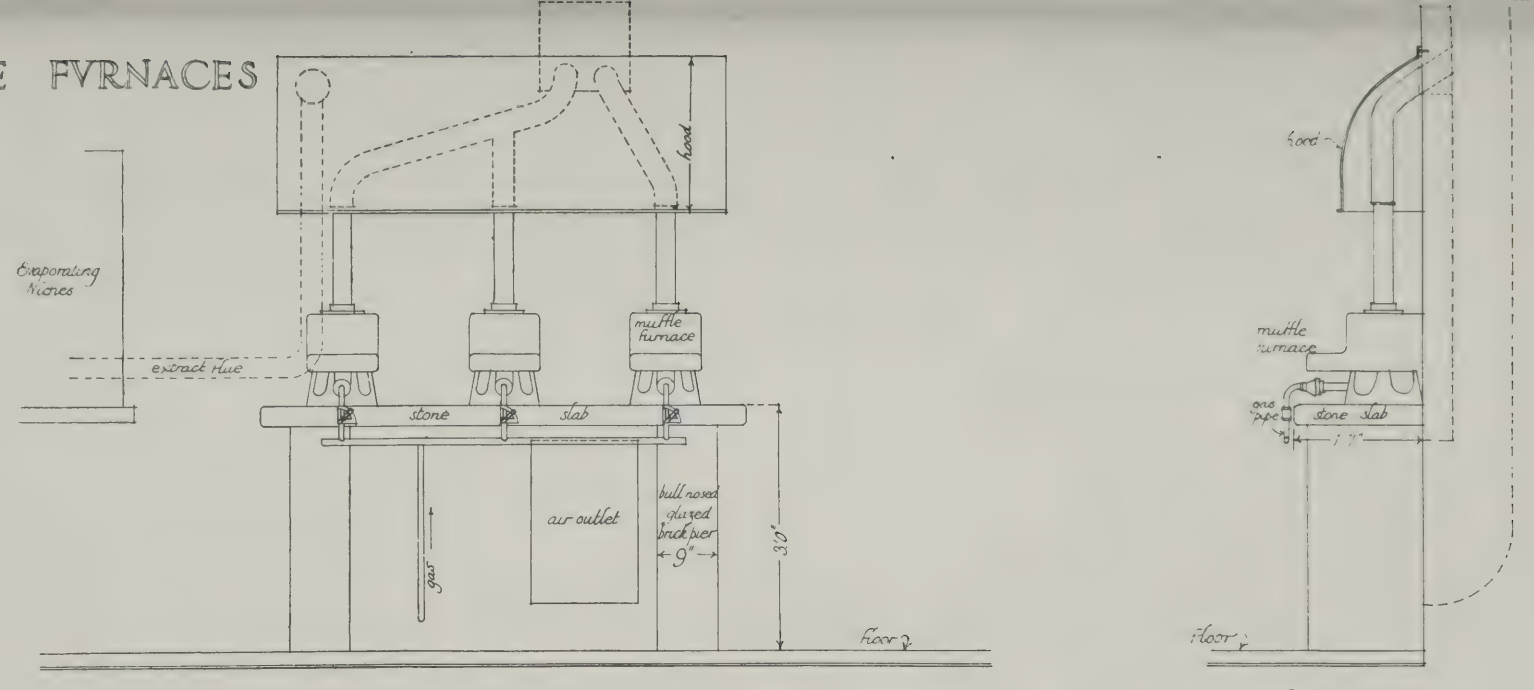
PLAN



PLAN

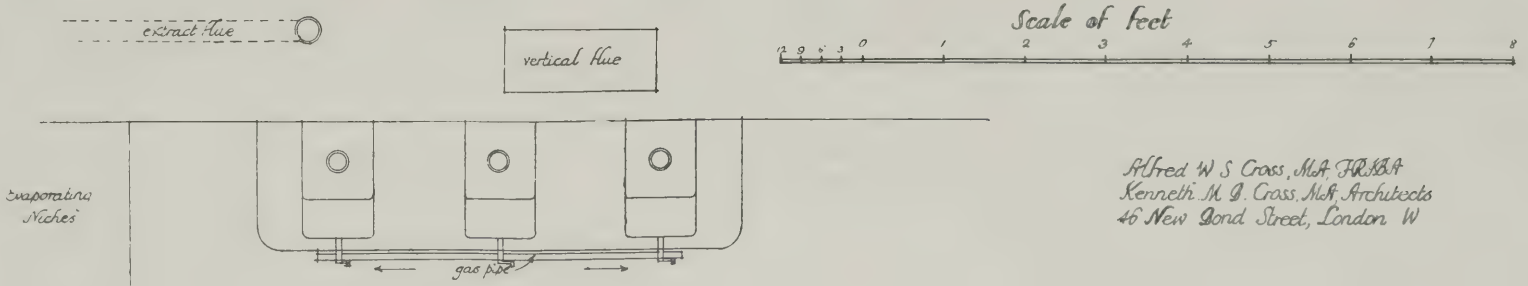
of cylinder & drying ovens

MUFFLE FURNACES



ELEVATION

SIDE ELEVATION



PLAN

taken above muffles

Alfred W S Cross, M.A. F.R.I.B.A.
Kenneth M. D. Cross, M.A. Architects
46 New Bond Street, London W

This drawing shows details of the apparatus necessary for the drying of certain ingredients in inorganic-chemistry laboratories, including ovens with steam and water-supply pipes. Muffle furnaces for the teaching of metallurgy are also illustrated. Further particulars are given on page 785.

Construction 23.—Improved Bases for Columns

. erecting columns upon a concrete dation it is a common practice to nt them upon a grillage of beams, spaces between the beams being l in with concrete. There has lately brought to our notice an improved of base, of cast metal construction. claimed for this base that it is much costly than the ordinary grillage , and capable of more expeditious tion.

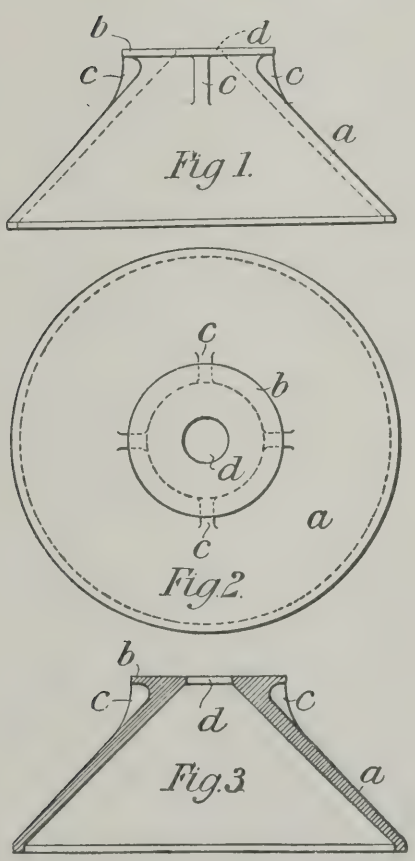
ıe invention will be readily under- d by reference to one of the accom- ying drawings, in which Fig. 1 is an ation, Fig. 2 a plan, and Fig. 3 a ral vertical section of the base; *a* cates a hollow shell constructed of iron and having the form of a cone tum, and *b* an external flange or form upon which the column is to be l, holes being formed in the said ge for the reception of the fixing bolts, screws, or the like. When a heavy mn is to be carried the flange or platform *b* may be strengthened by ribs or webs such as *c*, *c*. As shown in the drawing, the shell has a plane surface struck by a straight line; but, if desired, it may have a surface struck by a series of lines either straight or curved.

To erect a column the base is laid with its end of large diameter upon the concrete foundation, and then filled in and packed with concrete through the hole *d* in the top, or through specially provided openings, so that the pressure upon the column resting upon the small end of the base is distributed over the whole area of the foundation, whilst at the same time the base may be regarded as a casing or ring which strengthens or reinforces the concrete to resist the pressure.

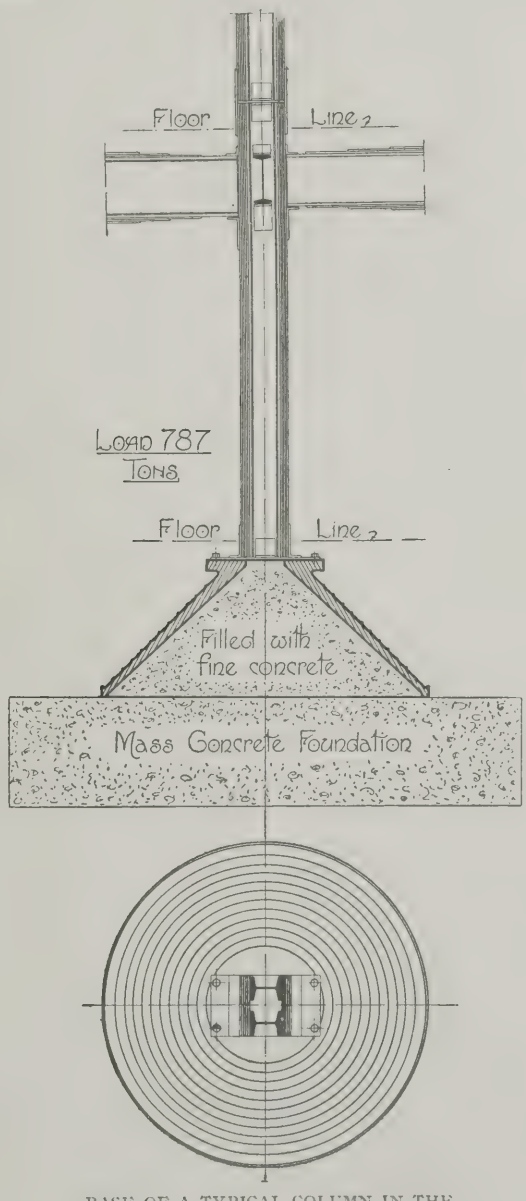
The base has been successfully employed in the Dickins and Jones building, Regent Street, which is now in course of erection from the designs of Messrs. Henry Tanner, FF.R.I.B.A. A drawing showing its special application in this instance is also reproduced with these notes. The patentees are Messrs. Moreland, Hayne & Co., Ltd., and Ralph Freeman, of 80 Goswell Road, and 56 Moorgate Street, London, respectively.

Details of Science and Technical Buildings

The details of fittings for an inorganic-chemistry laboratory, illustrated on the double-page plate, form the eleventh of the drawings of science and technical buildings, which have been specially prepared for the JOURNAL by Messrs. Alfred W. S. Cross, M.A., F.R.I.B.A., and Kenneth M. B. Cross, M.A., architects. In inorganic chemical laboratories it is frequently desired to dry certain ingredients in the course of chemical experiments, and special drying ovens are often provided for this purpose. A range of thin drying ovens is shown on the details, together with a sand-bath of ample dimensions, adjacent to which are the cylinder and distilled water jar. In this case the heat required for the drying ovens is produced by steam from a central supply; if no such source of supply exists gas is employed for this purpose. The steam and water supply pipes are shown, together with the valves and stop-cocks which regularize their volume. Muffle furnaces are chiefly required for



ELEVATION, PLAN, AND VERTICAL SECTION.



BASE OF A TYPICAL COLUMN IN THE DICKINS AND JONES BUILDING.

IMPROVED BASES FOR COLUMNS.

the teaching of metallurgy, though they are occasionally used in connection with certain phases of chemical work. These muffle furnaces are shown together with a flue, extract pipes, and a hood to prevent escaping gases from penetrating the furnace room. The furnaces are placed on a stone slab resting on bull-nosed glazed brick piers, and gas-supply pipes and gas burners, capable of generating considerable heat, are also shown.

Cairo Hospital Preliminary Competition Award

A cablegram has been received by the R.I.B.A. from Cairo announcing that the designs of the following six competitors have been selected in the preliminary competition :—

Mr. John Reginald Truelove, A.R.I.B.A., c/o Imperial War Graves Commission, Longuenesse, St. Omer, Pas de Calais, France.

Messrs. Cackett and Burns Dick, FF.R.I.B.A., Pilgrim House, Newcastle-upon-Tyne.

Messrs. W. and T. R. Milburn, FF.R.I.B.A., 11 Esplanade West, Sunderland.

Messieurs Pierre and Louis Guidetti, 31 Quai Bourbon, Paris.

Messrs. Lanchester, Rickards and Lucas, FF.R.I.B.A., and T. A. Lodge, A.R.I.B.A., 19 Bedford Square, London, W.C.1.

Messrs. Nicholas and Dixon Spain, FF.R.I.B.A., 19 Hanover Square, London, W.1.

The result is an emphatic triumph for British architects. The competition was open to the world, and designs were received from many of the most distinguished architects in the United States, France, Canada, Italy, and elsewhere. Five out of the six places in the preliminary round have been won by members of the R.I.B.A. The Assessor in the competition is Mr. John W. Simpson, Past-President of the R.I.B.A.

Enquiry Answered

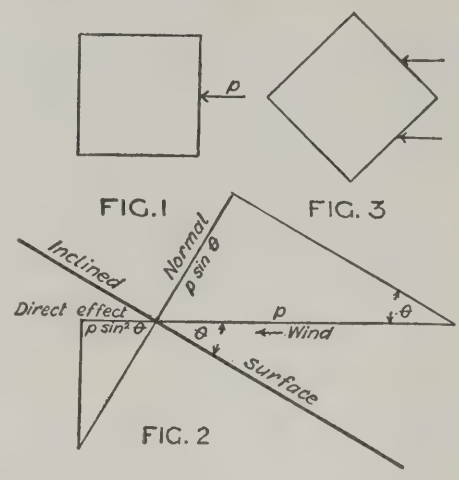
Wind Pressure on Elevated Tanks.

A. E. D. writes : "What is the relation between the wind pressure acting at right angles to the surface of a square tank to that acting at right angles to the diagonal ? By Unwin's formula the coefficient or multiplier for pressure normal to sloping surface for angle 45 degrees = 0.92, giving horizontal component or pressure parallel to the wind = $0.92 \div \sqrt{2}$ = 0.65, so that total pressure on the diagonal works out at $\frac{1}{3}$ times the pressure on the side.

"In a paper, 'The design of tall chimneys,' by Prof. H. Adams, read before the Society of Engineers, December 1911, the statement is given, 'A square chimney will give the same resistance whether facing the wind or standing diagonally to its direction, the greater area of the inclined surface and reduced pressure upon it making the same total as the flat side under full pressure.'

"Will you please give explanation of the formulæ to be used in considering the maximum wind pressure on an elevated tank of square section ?"

—Let p be the wind pressure in lb. per



sq. ft. on a surface normal to its direction, as for instance against the square tank in Fig. 1, then the total pressure will be pbh, b and h being breadth and height. When we come to consider an inclined surface as in Fig. 2, we see that the wind partly slides off and partly acts perpendicular to the face. The latter portion is again resolved into two directions, only one of which acts in the original direction of the wind. Now take it against the diagonal face of tank as in Fig. 3, the normal pressure on each face will be p sin 45 degrees = ·707 p, the other component slipping off. Again this normal pressure is resolved into two forces, one being p sin² 45 degrees acting in the direction of the wind, and the other balancing a similar force from the other face. Now p sin² 45 = 0·5 p, and the whole surface against which it acts is 2 bh, and as the intensity of pressure is 0.5 p the total pressure will be $2 \times 0{\cdot}5\ pbh = pbh$ as in the first position.

In the case of an elevated tank it is desirable to consider the fact that the wind pressure varies with the height from the ground level and with the area of the surface exposed to the wind. The writer's formula for this purpose is :

$$\log p = 1{\cdot}125 + 0{\cdot}32 \log h - 0{\cdot}12 \log w$$

where p = the wind pressure per square foot to be allowed for, h = height of centre of gravity of surface upon which the wind acts, w = width in feet of the surface. The p thus found will be taken in the calculation pbh as above. An addition of 25 per cent. may be made in exposed situations. If standing on a framed support, 1½ times the area of the framing should be taken as exposed to wind pressure.

HENRY ADAMS.

Publications Received

"Town Theory and Practice." By W. R. Lethaby, late Professor of Design, Royal College of Art; George L. Pepler, Past President Town Planning Institute; Raymond Unwin; Sir Theodore Chambers, chairman Welwyn Garden City, Limited, and R. L. Reiss, chairman Executive Committee Garden Cities and Town Planning Association. Edited, with an introduction, by C. B. Purdom. Price 5s. net. Messrs. Benn Brothers, 8 Bouverie Street, London, E.C.4.

"Converting a Business into a Private Company." By Herbert W. Jordan. Price 1s. net. Messrs. Jordan and Sons, Ltd., Chancery Lane. W.C.2.

Mr. Arthur Keen on the City Churches

Mr. Arthur Keen, hon. secretary of t R.I.B.A., has addressed the followi letter to the Editor of "The Times" :—

The old fight for our ancient C churches seems to be breaking out agai and I would like to refer your readers t letter in defence of them written in 18 by Sir Gilbert Scott to the then Bish of London. It was published by the Ci Church Preservation Society, and covers the ground so completely, an speaks with such authority and convictio that one can hardly feel, after reading i that we have any right to destroy thes churches. He makes his claim on th ground of considerations that ought t appeal to every Churchman; he is ver contemptuous of those who seek to secu their new churches in the suburbs fo nothing, and he shows the danger tha lies in the extension of the principle turning into cash the things that appea from the material standpoint, to be n longer required. This last point surel needs no urging. The time might com when the eyes of the covetous would b cast even on the Tower of London as valuable property that no longer serve a useful purpose and might be sold.

Do not Lord Knutsford and his sup porters realize that these churches have value, to those who appreciate the beaut and the associations of them, comparabl to the value that they might possess a places of worship if efforts were made t meet the changed conditions that hav arisen ? People go in crowds to week day services at the church on Holbor Viaduct; the Church Army make full us of their beautiful church near Billingsgat Market; in the hands of the Y.M.C.A. use for the City churches would quickl be found, and it is not too much to hop that the Church itself will still succeed i finding right uses for them. Apart fro any religious uses, they have unspeakable value in telling of the history of an ancien city, in giving relief and rest from th rush of city life, and they go a long way towards making London what it is—on of the beautiful cities of the world. A very well-known American architect told me a few days ago that he thinks so much of London that he has been here twenty-three times; in his view Paris does not compare with it. It will not maintain this character for long if we allow the Churchmen to sacrifice their churches.

Miss Lena Ashwell, speaking recently as one brought up in Canada, threw light on the beauty and interest of things and places in this country that are so familiar as scarcely to be noticed by us, but are full of charm and delight for a stranger; and the danger here in London is that hardly anyone realizes adequately the beauty of our city. The parks, the river and bridges, the old Inns of Court, the squares, the churches—they all contribute to it; but the number of the churches has been reduced again and again, and we must not deprive ourselves of a single one of those that are left.

[A comment on Lord Knutsford's letter was published in our last issue, and Miss Lena Ashwell's address was reported in our issue for October 19. Mr. Arthur Keen's admirably temperate but nevertheless effective letter here printed is briefly commented upon in our editorial notes.—Eds. A.J.]

Magazines of the Month*

A Literary and Pictorial Digest

ANCIENT ART, as commonly studied, too often seems as if it had never been living; as the linary man looks at some dismantled aple, he is conscious of his inability recreate the past and to people the pty, roofless halls with the living men whose purposes the building was ipted, and who gave it its meaning. is just this lack which Mr. Walcot's rk supplies," writes Miss K. H. Cutcheon in the December ARCHITECRAL REVIEW, in connection with the roduction in colour of a new water-colour drawing which forms the frontispiece to the number. Like most of Mr. Walcot's subjects, it is a classical one—"The Temple of Apollo at Thermos," once the chief city of the Aetolian League during its great struggle for independence. Its famous temple of Apollo, destroyed by Philip V of Macedon in 218 B.C., dates at least from the sixth century, and in its construction no traces of stone have been found. Its wooden columns were painted as a protection from the weather as well as for decorative purposes, while the metopes of the frieze and the walls of the peristyle were adorned with terra-cotta slabs of archaic design. Looking at Mr. Walcot's work, the giants of old come on once more, shaking the stage. A new etching, "Visit of the Brothers Quintilii to the house of Comodus," is also reproduced.

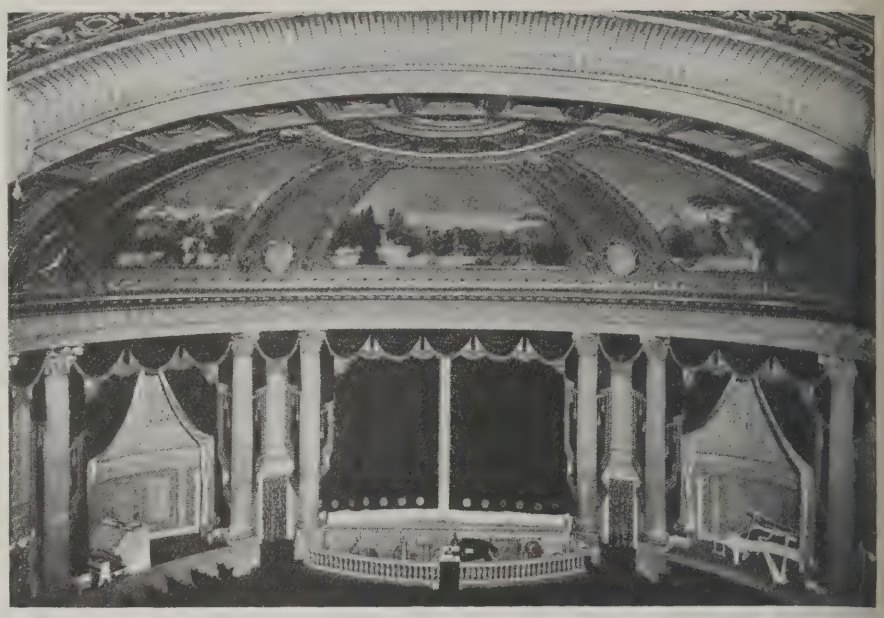
In the same issue of this architectural monthly, Mr. Paul Waterhouse, P.R.I.B.A., writes delightfully about some of the old engravings at the Athenæum Club, than which a finer collection would be very difficult to name. Among the views relating to the part of London in which it stands are very properly to be found some records of the forgotten splendours of Carlton House, the death of which nearly coincided with the

* Copies of these and other Publications may be seen at the Library, 29 Tothill Street, Westminster, S.W.1.



CARLTON HOUSE: THE GRAND STAIRCASE.
(From "The Architectural Review.")

Athenæum's birth in 1824. Says Mr. Waterhouse: "The name of the architect who designed the first mansion is unknown. The building was of plain red brick with a stone doorway in the centre. The whole face of the building was afterwards cased in stone. The architect of the renovations—how few remember his name to-day!—was Henry Holland, known as the designer of Melville House, Whitehall, and of old Drury Lane Theatre. He died in 1806 at the age of sixty, and had been much in favour of royal and titled persons. . . . The general plan of Carlton House was remarkable for two characteristics. Its front towards St. James's Park was a story lower than the ground floor facing Pall Mall, and its central axis on the north side was 23 ft. east of that of the southern façade. There must have been a certain charm in this arrangement, as the main staircase, which is on the southern centre line, lay to the west of the octagon vestibule which opens out of the great hall on the northern front." We are able to reproduce the illustration of the grand staircase, with its generous sweeps.

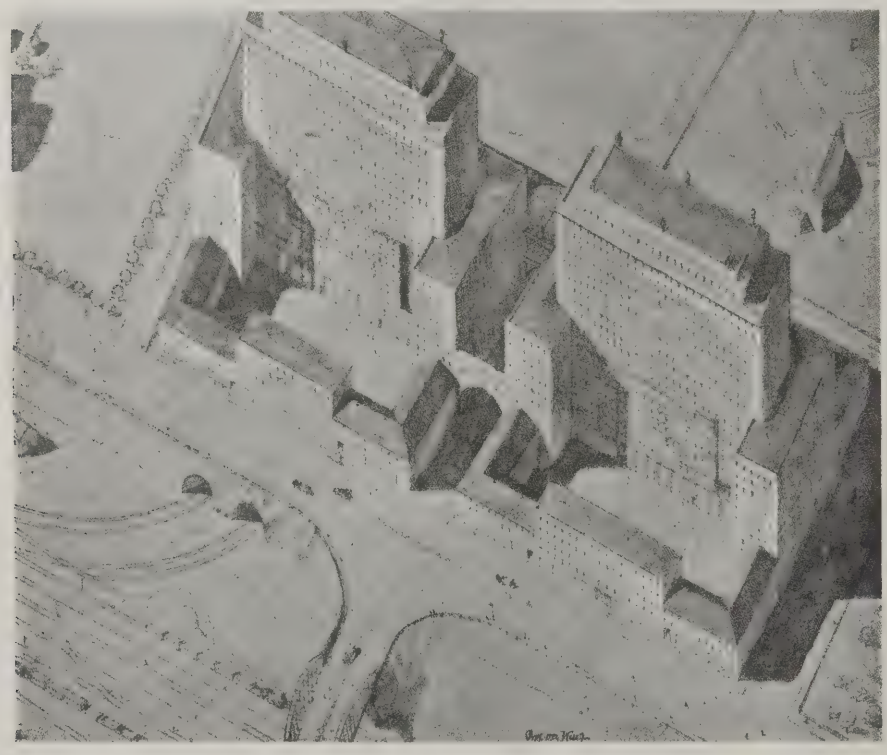


CAPITOL THEATRE, DAVENPORT, IOWA. C. W. AND GEORGE L. RAPP, ARCHITECTS.
(*From "Good Furniture."*)

COUNTRY LIFE, in its Christmas number, gives a dozen illustrations of Eton College, accompanied by an account of its building by Henry VI, who "constantly changed his mind, shifting about towers as though they were mere castles on a chess board, and even pulling down a choir that had taken seven years in building, just to make it broader by 5 ft. and longer by 50 ft." The writer, Mr. Christopher Hussey, traces its evolution to the edifice of the present day. He considers Lower School to be the earliest part of Eton, and gives three good reasons for the belief, the most important emanating from the practical certainty of its southern face having originally been arcaded. Indeed, there can yet be seen a course of lead projecting slightly from between two brick courses just below the southern window sills of Long Chamber, and during alterations in School Yard in 1876 there were laid bare the foundations of a brick wall running parallel to, but 10 ft. from, the wall of Lower School; obvious indications of a cloister, though as to whether it was ever completed there is no direct evidence.

The December LONDON MERCURY has its usual section on architecture wherein Mr. A. R. Powys reviews the Port of London Authority building, designed by T. Edwin Cooper. It occupies a rectangular site adjoining Trinity Square, the corner facing the Tower of London being cut off; "and it is here," says Mr. Powys, "that the architect has centred his interest. The massive tower which he has placed at this point masters the design of the whole building." If the building be approached from Mark Lane Station and Byward Street, the visitor "will come upon a really impressive sight. The part of the pavilion which forms the block on the south-east angle is then nearly at right angles to his line of vision. The lines of the cornice sloping downward in perspective cut sharply across the still more foreshortened lines of the substructure of the tower. The tower rises in boldly marked stages above these features, and with them makes a truly fine mass. . . . It is a building truly in the grand manner, and of a scale to carry this pretension well.

"The architect has been far less successful with the other façades of the building. . . . Between the corner pavilions, or angle blocks, is a plain face having as a central feature a rather narrow porch of slight projection, which rises through two stories. The windows on these fronts decrease in height from the ground upwards. Every alternate window of the story immediately below the cornice has a solid stone balcony, rather too heavy for its position and, though strongly designed, a little out of scale with the finer members of these fronts. I think these balconies would have been better had they been at the first-floor level; indeed, I am not certain that they should not have been omitted altogether. . . . The continuous series of carved consoles or brackets that supports the crowning member reduces its scale and is a little monotonous. . . . The weakest part of the design is unquestionably the treatment of the angle blocks or pavilions already referred to. They project somewhat beyond the main façade, and each is deeply recessed from the ground to the cornice. In these recesses, on either side, and very close to the square ashlar stonework, stand Corinthian columns. By comparison with the surrounding work, and when not seen in connection with the tower, these columns appear gigantic and out of scale. This is markedly so when they are considered with the entablature that rests on them."



BLOCK OF TALL BUILDINGS, MUNICH.
(*From "Wasmuths Monatshefte für Baukunst."*)

It is a good sign, though one not necessarily pleasant to all architects, to see the lay press taking up criticism of modern architecture, and stimulating public inter-

in the matter. In this kind of work LONDON MERCURY is, of course, oneer amongst the reviews.

art I of a new special series entitled ıe Rebuilding of London," makes an resting feature of THE SPHERE for ember 17. It consists of a number of tographs of the principal new build- in course of erection, including ca House in Kingsway, by Trehearne Norman; new premises for Messrs. R. Dale & Co., Oxford Circus, by vès and Davis; the new Trust Build- in Fenchurch Street, by Mr. M. E. ins; and the Dickins and Jones build- in Regent Street, by Messrs. Henry ner and Sons.

aurence Binyon contributes to THE NT-COLLECTOR'S QUARTERLY for ember a monograph on "The Etch- and Engravings of William Strang," "won through to success, and then, a suddenness that still shocks the nory, died in the full vigour of his ers." It was as an etcher that ng first won a name, and his interest architects lies chiefly in what Mr. yon calls the "architectural squareness esign and vigour of pattern" displayed ividly in all his work. The etching reproduce has a peculiarly architec- ic quality. It was executed in 1898 n Strang was commissioned to make t of architectural etchings of "Western nders" for which Mr. Binyon was to vide the letterpress. "We stayed at ges and Ypres and Furnes," says Mr. yon. . . . "I remember well the morning we spent on the banks of the great moat that lay beneath the ramparts of Ypres, which he made the subject of one of the best of the set of etchings" . . . . Ypres was then a town that "seemed haunted by silence, and appeared to have betaken itself to a sleep that nothing would ever disturb. Grass grew in the streets." In the "Interior of the Cloth Hall," Strang, as can be seen in our illustration, concentrated upon the wonderful seven-hundred-year-old timber work of the roof, the drawing being made at a corner of the cross-gallery at the end of the great hall on the first floor of the building. The artistic value of this picture is unquestionable, yet no working-drawing could display more accurately the part each detail is playing in the complicated adjustment of stresses and strains.

GOOD FURNITURE, Michigan, has an interesting November issue, in which appears the second part of an article on "The Oldest Furniture in the World." In Egyptian art, says the writer, "we have the most important decorative ancestor, not only of Greece and Rome and Byzantium and Florence and Paris, but also of New York." He then proceeds to describe some very early Egyptian chairs, excellent coloured illustrations of which are reproduced in the article. There is also a profusely illustrated contribution on "The Hardware on your Furniture," dealing with English hardware, in which the writer, W. W. Kent, says, "In the whole category of furniture hardware, the English work is the most important to the American furniture industry. Perhaps as large a percentage as ninety, of all furniture made in American shops, is based on the traditions of English cabinet-making of the sixteenth, seventeenth, and eighteenth centuries. A few years ago this percentage was even larger."

There are many metalworkers and founders in England who issue excellent catalogues and do a considerable business with both Canada and the United States. In fact, some of the new designs for the American market are made only in England. The American manufacturer, who prides himself on the correctness and quality of design of the hardware he places on his cabinet-work, feels compelled to patronize the English metalworkers. This seems a curious state of affairs, inasmuch as no country in the world surpasses America in excellence of metalwork for architectural purposes.

Another article in this issue deals with the Capitol Theatre, Davenport, Iowa, designed by C. W. and G. L. Rapp, architects, an illustration of which appears on page 788.

This theatre is "entered through an outer lobby of great height, splendidly illuminated with crystal fixtures. Passing into the inner lobby the playgoer is met with stairs on either side, which rise to the balcony foyer. . . . Through arched openings on both sides one descends to the ladies' and gentlemen's retiring-rooms, the former decorated in late French Renaissance style, while the latter, with the heavy-beamed ceiling, is finished with a red tile floor, English style. On the second floor is located the nursery, equipped as a playroom, where parents may check their youngsters while they themselves enjoy the show. A maid is constantly in attendance.

"The walls of the auditorium under the balcony are treated with silk panels on which are painted figures of dancing girls. These are effectively illuminated by concealed lights placed behind the coloured draperies festooned at the sides and above. The main ceiling and that under the balcony are illuminated with concealed coves; and the sounding-board which arches over the proscenium box is perforated and has concealed coloured lights behind it.

"Between the columns one looks out upon Italian scenes softly lighted from above the dome. The screen in the centre is covered with warm silk hangings appliquéd with silver."

LA CITÉ contains a dissertation on Architecture and Individualism, by Elie Faure, who brings to art subjects the knowledge of an historian and the wisdom of a philosopher. Conditions of human society, he says, have never been so favourable to the aggravation of an instability that leads an individual—thrown off his balance by the banishing of all social, religious, intellectual traditions—to fancy himself able, as soon as he leaves college, to foist on society a system concocted in a week. Overwhelmed by the sudden disorganization of our world, we either abandon ourselves to a succession of passing movements, or else deny their very existence while sheltering in the fashion of all dying intellectual aristocracies, behind an obsolete classicism.

L'ARCHITECTURE has an article on furniture and decoration in the Autumn Salon with attractive illustrations.



ROOF OF THE CLOTH HALL, YPRES. ETCHED BY WILLIAM STRANG.
(*From "The Print-Collector's Quarterly," by permission of the Fine Art Society.*)

The current issue of WASMUTHS MONATSHEFTE FUR BAUKUNST, Berlin, deals largely with a proposed "New Building Scale for Munich"—a matter similar to the "Higher Building" question in London—in which the writer says, "As regards the central area of Munich, the problem of tall buildings is a new one, though within the 1½ kilometre zone of which the Frauenkirche is the centre, there are several examples. In this connection Professor O. O. Kurz, who has placed before the civic authorities several town-planning projects, has designed two as yet unexecuted blocks to flank the Hackerbrücke not far from the principal railway station. Situated in this busy commercial centre they would add greatly to its business facilities. In elevation and distribution of masses they reveal features which are unusual in southern Germany, but are likely to become familiar there if the burghers adopt any or all of the monumental designs that Herr Kurz has put before the authorities. There seems to be a general demand for bigger buildings than those to which Munich has been so long accustomed."

The interest of the design prepared by Herr Kurz (which is here reproduced) lies not so much in the design itself as in the method adopted of drawing a bird's-eye perspective of the scheme. This is a favourite practice in Germany, and has much to commend it, for in such a drawing one is able to conceive the plan and the elevation as component parts, each in sympathy with — and meaningless without—the other, and together achieving the unity of a design.

Architects and National Taste

That the English architect of to-day is necessarily a dictator of taste was a point made by Professor C. H. Reilly, of the School of Architecture, Liverpool University, in reading a paper on "Architects and National Taste" before the Birmingham Architectural Association. Professor Reilly said that the architect's responsibility to the community was greater than it had ever been. It was extremely rare to find a client with any definite ideas as to what he wanted in the matter of style. If he asked for Tudor, he would probably be equally pleased with some modern version of Georgian. "I know of a case," added Professor Reilly, "of a well-known modern architect and a noble client, where the latter asked for a Jacobean house and received a Pompeiian one, and was delighted with it." The position of the architect to-day, if he has any civic conscience, was one to tremble at. In his hands alone lay the form, features, and expression of our modern towns as well as the power of preserving or destroying the character of our old ones.

Turning to the question of how the modern architect has fulfilled his trust, Professor Reilly made some interesting comparisons with contemporary architectural work in America. Perhaps it was due to her size, perhaps to the multiplicity of races that went to make up her common stock, that America did not seem to be swept, as our country had been, by fashions set by individual contemporary architects. American architecture had been in the last thirty years less self-supporting, less sufficient, and less insular than our own. The American architect deliberately sought his inspiration in the work of the Italian, French, and Spanish Renaissance, and not in any popular version of them that an individual architect might have brought about. He had his library of authorities. The result was a much purer and more stable architecture. The American architect's problems were so different from those of the old world that he was forced to think and invent. In America the architect was apparently just as much a dictator of taste as in England, but there he appeared to realize his responsibilities more clearly.

At the conclusion of the lecture, which was illustrated with lantern slides and photographs, Mr. William Haywood, F.R.I.B.A., proposed a vote of thanks to Professor Reilly, which was seconded by Mr. A. T. Butler, F.R.I.B.A., and carried unanimously.

The Royal Institute of the Architects of Ireland

The annual general meeting of the Royal Institute of the Architects of Ireland has been held under the chairmanship of the President, Mr. Lucius O'Callaghan, F.R.I.A.I., in Dublin. The President moved a vote of sympathy, which was passed in silence, on the death of the oldest member of the Institute, Mr. George C. Ashlin. The report of the scrutineers of the ballot for the Council for 1922 was then read, and the President declared the following to be elected: Messrs. H. Allberry, J. H. Webb, F. Hayes, G. P. Sheridan, P. J. Lynch, R. M. Butler, T. J. Byrne, F. G. Hicks, R. H. Byrne.

Mr. H. Allberry, F.R.I.A.I., read the report of the Council for the past session, which stated that the membership of the Institute at present consisted of thirty-six Fellows, ninety-eight Members, one honorary Fellow, three honorary Members, and two students, making a total of 140. The advice of the Council was being increasingly sought by members and non-members of the Institute on matters connected with professional practice and subjects of architectural interest. This general and ever-growing recognition of one of the Institute's primary functions had been a satisfactory feature of the past session. The Guild of Building Workers (Dublin and District) approached the Council for advice upon a form of contract which had been prepared to cover building operations to be carried out under the auspices of that body. The contract was based on British practice, and required certain modification. The document was examined by the Professional Practice Committee and amended, and after amendment was returned to the secretary of the Guild for his information. It was a matter for regret that the competition for the Institute prize this year was so limited, and the designs submitted of such a standard, that the assessor recommended the Council to withhold the prize. The prize of £10 10s. (ten guineas) had, however, been again offered for next session, and Mr. H. G. Leask had been appointed assessor.

Mr. F. Batchelor, past President, in proposing the adoption of the report stated that the work of the Council was obviously increasing in extent and importance each year, and that several of the matters referred to in the report were worthy of the closest scrutiny by every member of the architectural profession. He was of opinion that the Guilds of Building Workers had come to stay, and that their activities might probably assist in solving many problems connected with the building trade.

Mr. M. J. Burke, M.R.I.A.I., in seconding the adoption of the report, said that, speaking on behalf of the many members who were unable from one cause or another to attend the meetings regularly, he wished to assure the Council that the record of their work was carefully followed, and the results were gaining the gratitude and admiration of the profession in Ireland.

The President, in putting the adoption of the report to the meeting, called particular attention to the assistance that had recently been given to cases of distress by the Architects' Benevolent Society, and impressed upon the members the need of supporting this useful organization. The report was unanimously adopted.

The hon. treasurer, Mr. G. P. Sheridan, F.R.I.A.I., read the audited statement of accounts, which showed an increase in income and balance in hand over those of the preceding years. The adoption of the statement was proposed by Mr. G. F. Beckett, F.R.I.A.I., seconded by Mr. J. Holloway, M.R.I.A.I., and carried unanimously. Messrs. E. Bradbury and H. G. Leask were elected auditors for the coming session.

A hearty vote of thanks was passed to the retiring hon. secretary and hon. treasurer for their three years of devoted services to the Institute.

A Higgs and Hill Dinner

The interest which the heads of many great business firms take in the welfare of their employees is quite a remarkable feature of modern life. To-day it is beginning to be realized that masters are humanly responsible for those who serve them in the way that a father is responsible for his family, and that good business lies in turning out good work, not in turning out people's pockets. This kindly feeling between masters and men was recently manifested in a dinner given by Messrs. Higgs and Hill to their staff in the Throne Room of the Holborn Restaurant. A magnificent feast was provided, and followed by a delightful musical entertainment in which a banjo played a prominent and much appreciated part, while some excellent speeches were made by members of the staff and by various well-known architects and builders, of whom there were many present.

The evening was so entirely successful that it seemed impossible to believe that trouble between masters and men could exist in the building world. Indeed, were the friendliness of spirit displayed in giving this evening's entertainment more generally exhibited by large firms, one cannot but believe that bitterness between so-called capital and labour would never in the first place have arisen.

The Week's News

Change of Address.

essrs. George Hubbard and Son, itects, have moved to 45 New Bond et, W. Telephone Mayfair 7016.

High Buildings Opposed.

crease in the height of buildings looking public open spaces is opposed the Metropolitan Public Gardens ciation.

corporated Church Building Society.

ie Committee of the Incorporated rch Building Society have appointed Clifton Kelway secretary of the ety, in succession to the late Rev. . Norgate.

Chapel Royal in Danger.

wing to economies the King feels pelled to make, the Chapel Royal, y, is in danger of being closed. In r to obviate this a committee has formed to consider whether the el can be preserved. Every effort is e made to explore means of ensuring preservation of this chapel.

High Wycombe's Woodworking Industry.

forts are being made by the Publicity mittee of the High Wycombe Town ncil to educate the public to the fact the town is not only the centre of the r and furniture industry, but that it produce the best woodwork of all s. Among the specialities of the are woodwork for ecclesiastical lings, school furniture, interior panel- and decorations.

Italian Unemployment Works.

cording to the Commercial Coun- r to H.M. Embassy in Rome, the an Government have provided 000,000 lire to carry out public works the relief of unemployment. The ramme laid down includes the con- ction and repair of bridges and roads, raulic and harbour works, light- es, dredging and coast protection s, and the erection of new Govern- t offices.

Plymouth War Memorial.

ne site at the entrance to the Hoe, at unction of Citadel Road and Lockyer et, has been approved for Plymouth Memorial. The memorial which it roposed to erect is semicircular in e, with a pylon—an Eastern temple way—in the centre background, and ure of Mother Plymouth distributing els, standing on a pedestal, imme- ely in front. The pylon is flanked on r side by a low wall containing panels which the names of the fallen will be ribed.

sing and Town Planning Conferences.

ne National Housing and Town Plan- Council have decided to call a series nferences throughout the country, at h resolutions will be considered ng for the fulfilment of the pledges dy given by the Government, and "the wise and active administration cal authorities of the housing powers duties embodied in the various sing and town-planning Acts." The conference will be held for the tern Midlands at Birmingham on uary 28.

Proposed East Midlands University.

Sir Jesse Boot has given a large park, known as the Highfield Estate, which lies between Nottingham and Beeston, as a site for the proposed East Midlands University. Sir Jesse Boot is also giving £100,000 towards the new buildings and also £50,000 towards the endowment fund. The park contains a large lake, and is being connected with Nottingham by a wide boulevard, a mile and a half long, which Sir Jesse Boot is having constructed at his own expense. The cost of the new road is over £100,000.

Seventeenth-century Relic Discovered.

A curious old stone, brought to light during the demolition of an old barn at Wandsworth, has been recognized by Mr. Ernest Dixon, of Putney, horticulturist and an enthusiastic antiquary, as a long-lost old mounting block and milestone. It is reputed to have been set up by Mr. Thomas Nuthall, of Roehampton, in 1654, as a milestone on the London-Portsmouth Road in Putney Vale. The block has a step on the right to assist in mounting a horse, and was mentioned in 1814 by Manning and Bray, the Surrey historians.

Steel Window Association Dissolved.

We understand that the Steel Window Association, which was formed to popularize and cheapen steel casements, has now been dissolved, the objects of the Association having been accomplished. The standard steel window for cottages, one of the achievements of the Association, has contributed in no small degree towards the cheapening of house-construction. Standard steel cottage windows are manufactured by the individual firms, but not under the auspices of an association or combination of any kind. The operations of the Association were carried on without price control, but solely in the interests of cheap production. Correspondence respecting the propaganda of the Association should no longer be addressed to 246 High Holborn, but to the individual firms.

The British Trade Ship.

The Board of the British Trade Ship, of which Earl Grey is chairman, publish information which shows the present and prospective fall in the cost of production. Since the original figures on which were based the estimates for the building of the ship were obtained almost a year ago, manufacturing and other costs have shown a tendency towards decline. Although many items have only fallen slightly during this period, yet there has been a very distinct fall in prices in some directions, such as baths and sanitary fittings, paints and varnishes and timber. Anticipating a further fall not only in the cost of construction, but also of voyaging, the Board of the ship have at once decided to give the exhibitors the present and prospective advantage by reducing the cost of space by 33⅓ per cent. This reduction also applies to the cost of sending a representative of the firm on tour in the ship itself. The offices of the British Trade Ship, Ltd., are at 12 Grosvenor Gardens, S.W.1.

Lectures on Historical Building Construction.

A course of lectures is to be given at University College, London, during the coming term, by Mr. Martin S. Briggs, F.R.I.B.A. (Godwin Bursar, 1914), on "The Historical Development of Building Construction." This course constitutes the first attempt to trace the various elemental processes of building through the different ages. It is intended for those who already possess a knowledge of building construction and of the history of architectural development, but whereas history and construction have hitherto been taught as separate subjects, the lecturer will prove their mutual interdependence from the days of the ancient civilizations down to modern times. Attention will be given to minor points of exceptional interest in which the problems of the old builders may be compared with our own. The subjects of the ten lectures will be: 1, brickwork; 2, masonry; 3, concrete and marble; 4, carpentry; 5, joinery; 6, ironwork; 7, roofing; 8, plasterwork; 9, leadwork; 10, glazing. They will be illustrated chiefly by means of blackboard sketches, lantern slides and measured drawings lent by members of the Bartlett School of Architecture staff will also be used. The lectures will be given on Wednesday evenings in the Architectural Theatre at 6.15, beginning January 25. The fee for the course is 10s. 6d. to students of the College, to others £1 1s. Application for tickets of admission should be addressed to the Secretary, University College, London (Gower Street, W.C.1).

Local Authorities' Loans

In a circular, No. 254, just issued, the Ministry of Health state that one half of the money raised from October 1, 1921, onwards by the sale of National Savings Certificates in the area of any local authority, irrespective of its rateable value, will be available for loans to that authority for any purpose for which the Public Works Loan Commissioners have power to lend money. The loans will be made on the terms in force for the time being for ordinary loans to local authorities, secured on the local rates, from the Local Loans Fund at the rate of interest applicable to a loan for that purpose. In most instances this rate is at present 6 per cent. per annum. It is a condition precedent to the granting of loans out of savings certificate money, that statistics of the local sales of certificates must be furnished by the authority concerned. Many authorities have, in conjunction with the Local Savings Committees, already established the machinery for obtaining these statistics, and those who have not done so may obtain the necessary information on application to the National Savings Committee, Princes House, Kingwsay, W.C.2. It is hoped that the new arrangement will be of special assistance to local authorities in the present emergency by enabling them to provide capital for works which may be undertaken for the relief of unemployment. The amount of new capital which will thus become available will depend upon local effort, and authorities are therefore urged to continue and to extend the support and assistance already given in many cases to local savings committees. The Ministry hope that the fullest support will be given to the committees in their work of forming and stimulating Savings Associations in schools, factories, workshops, clubs, and similar units; by this means a steady flow of capital for local needs will be secured.

Trade and Craft

Standard Metal Windows.

Two useful leaflets dealing respectively with "Reliance" metal windows for factories and housing schemes have just been issued by Messrs. Williams and Williams, Ltd. Diagrams are given of the many standardized patterns in which the windows are made, together with details of the fittings. The windows, manufactured by massed production to an engineering standard of accuracy, are claimed to be constructed of the finest rolled steel sections, straightened by hydraulic machinery, the corners of the frames being welded solid and pressed to size under 600 ton presses. After final adjustment and inspection the completed window is coated with weather-resisting paint. The lock joint used in the $1\frac{3}{8}$ in. sash sections of the company is particularly interesting. This lock joint, besides obviating much cutting away where strength is required at the most vital point of a sash—the cross joint—enables a much lighter section to be adopted. Although the windows are made in a large number of types, the firm are willing to execute orders to meet special requirements. The London office of the company is at Sardinia House, Kingsway, W.C.2, and the head office at Reliance Works, Chester. Each branch office of the company is in charge of a fully qualified engineer, under whom there operates a staff of skilled mechanics.

Continuous Reinforced Wood Lathing.

Among the more important advantages claimed for the Weston-Reuter system of continuous reinforced wood lathing are economy in first cost, easy manipulation, and the elimination, to a large extent, of skilled labour. The lathing, which is made in rolls 33 ft. long and of various widths, may be used in all situations—on the underside of rafters, eaves, and wood joists, vertical studding, concrete floors, curved and sloping ceilings, columns, etc. The laths are reinforced with $\frac{1}{2}$ in. by $\frac{1}{4}$ in. section galvanized wire, running at right angles and at intervals of about 9 in. In applying the system to ceilings a staging is erected at such a height that the workman can easily hold the lathing tight up to the joists while fixing. A roll of lathing is lifted on to the staging and is partly unrolled for a length slightly in excess of the height from the platform to the ceiling. It is then held tightly to the underside of the joists and secured with small galvanized staples. As additional lathing is fixed the roll is automatically unwound, and pushed forward on the staging. When used in connection with beams supporting concrete floors the lathing is fixed with clips or binding wire to steel rods. These rods obtain additional support at intervals from wire stirrups which are cast in the concrete and pulled down after the centering is struck. In the case of lathing applied to vertical faces this is fixed in a similar manner to that described for ceilings, but the roll is unwound on the floor and the unwound portion is raised to the ceiling, where it is fixed to the studding with staples. The fixing is completed downwards from ceiling to floor. The lathing is claimed to be equally suitable for exteriors, whether houses or works of a semi-permanent character such as exhibition buildings, bungalows, etc. The Weston-Reuter Company, Ltd., of 61 and 62 Gracechurch Street, London, E.C.3, are the manufacturers.

Electric Lighting.

The General Electric Company, Ltd. have sent us a number of interesting leaflets with regard to the firm's showroom service, the revised prices of electric light fixtures and accessories, and the Atrax projector for illuminated publicity, as well as a booklet dealing with electric lighting in factories and workshops. Any of these publications may be obtained on application to the company at Magnet House, Kingsway, London, W.C.2. At these newly erected premises the company possess a very fine suite of showrooms, in which there is a most complete and representative display of electric light fittings and domestic electrical appliances. Owing to the varied styles in which the different salons are decorated and the many colour schemes employed, the fittings can be examined in most appropriate surroundings. Similar showrooms are also arranged at each of the branches of the company throughout the United Kingdom. Much interest is being taken by the public in the "Atrax" projector, which, we have noticed, is in successful use in many parts of London. This projector throws a brilliantly illuminated image, without the use of a screen, in any direction—on the sidewalk, floor, or ceiling. The projector is designed on the principle of the magic lantern, and employs inverted slides. As an aid to publicity the possibilities of such a handy device are limited only by the ingenuity of its possessor. The booklet on "Electric Lighting in Factories and Workshops" was originally one of the "good lighting" series published by Sir Isaac Pitman and Son, Ltd. It deals with the subject in a simple manner, and avoids as far as possible the use of abstruse technical terms.

Sliding Doors and Overhead Run-ways.

In a new catalogue just issued, Messrs. Geo. W. King, Ltd., of Windmill Lane, Stratford, E.15, endeavour to give a comprehensive idea of their overhead run-ways and their range of usefulness as applied to the handling of various articles of commerce, weighing up to one ton. The Louden-King overhead carrying system has been designed to effect a saving of both time and labour, and the whole equipment is so supplied by enable the customers themselves in many instances to erect the complete installation, thus considerably reducing expenses. The system is claimed to be simple, thoroughly practical, and inexpensive. Loads can be lifted and lowered by means of the firm's hoists, thus entirely eliminating loading and unloading. Overhead run-ways can be employed practically in any factory or warehouse where goods are handled, either in the process of manufacture or in the final dispatch of goods. The company have also sent us a brochure describing the "out of the way" sliding door track, hangers, and fittings for garages, warehouses, shops, etc. The door is built in sections hinged together, and slides round a short curve. It is hung on swivelled roller-bearing trolleys operating on a continuous steel track. The track extends across and above the door opening inside, and for the same distance along the adjoining wall, curved at the corner. The door slides round the corner smoothly, lies flat against the side wall when open, out of the way, and it stays there. The track and hangers are all inside the garage, fully protected from the weather. The roller-bearing trolleys are swivelled at the point where they connect with the door straps. They are attached to the sections of the door, one section being free to swing like an ordinary hinged door. This construction makes possible the convenient doorway for passing in and out. The opening and shutting of the "out of the way" door is claimed to be so simple that "a child can do it."

The Shortage of Plasterers.

It is surprising that housing schemes should be held up, with consequent unemployment in many branches of the building industry, for the want of plasterers, when to-day a substitute for plaster is easily obtainable. In all parts of the country a similar shortage is felt, the cause undoubtedly being due to the fact that the trade has not been recruited in proportion to the other crafts. By the use of "SX" board the difficulty may be easily overcome, and at the same time a charming panelled or other treatment for interior walls and ceilings secured. As a means for interior decoration "SX" board opens up great possibilities. By the original and artistic arrangement of panels, by the careful choice and blending of colours, or by the use, where desired, of stencil designs, a wide range of beautiful effects can be obtained. "SX" board is fixed by simply nailing the sheets to the ceiling joists or to the timber framing of wooden buildings, or in the case of brick or concrete walls, to battens fixed at intervals. As a finish the board can be painted and grained, veneered on one or both sides with veneers of mahogany, oak, walnut, &c., distempered or stained, and for bathrooms it may be enamelled. Where panelling is objected to, placing the sheets lengthwise round the room will be found an excellent method to adopt. Besides being very light and easy to handle, the board can be cut with a saw, knife, or chisel, and curved or bent to fit any place. These advantages, coupled with the fact that the board is made in large panels, give it a very wide field of usefulness in churches, chapels, public halls, cinemas, hotels, restaurants, hospitals, schools, workrooms, and in fact in any building. The manufacture of "SX" board is a British industry, the whole process from fibre to finished board being carried out at the mills of the Thames Paper Company, Ltd., at Purfleet, Essex. The material has received the approval of the Ministry of Health, and has been employed with great success in several important State-aided housing schemes.

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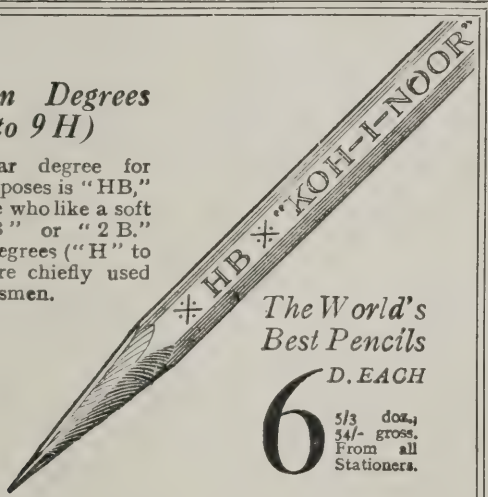
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The popular degree for writing purposes is "HB," or for those who like a soft pencil, "B" or "2B." The hard degrees ("H" to "9H") are chiefly used by draughtsmen.



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5/3 doz., 54/- gross. From all Stationers.

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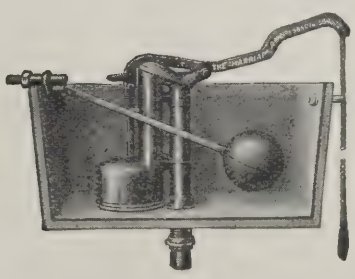
"KOH-I-NOOR"

L. & C. HARDTMUTH, 10 Bothwell Street, Glasgow.

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Napier Lead Works, Laisterdyke, Bradford.

Awarded Bronze Medal by the Royal Sanitary Institute at the Health Exhibition, Folkestone, 1921.

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We earnestly solicit the interest of Architects, Surveyors, and Medical Officers of Health in this Cistern, as they will be able to adopt the most superior article on the market at the same price as the mediocre, and we shall be pleased to send a free sample for trial where a number are likely to be required.

Electrical Notes: Some Points in Illuminating Engineering*

FOR the purpose of planning an illumination scheme it is desirable that the following information be obtained: (1) Accurate dimensions, preferably plan and elevation. (2) Colour of walls and ceilings. (3) Nature of locations and use to which they are put, e.g., shop, chemist's; factory, dark weaving. If the building is already wired note should be made of the position of the outlets.

For the proper designing of an installation it is very important that a visual picture of the work as it will be carried out shall be made, so that the direction of the light can be carefully studied, thereby enabling all the necessary surfaces to be adequately illuminated, and at the same time undue interference on account of shadows avoided. In the case of decorative schemes, it is essential that the fittings, if any, should harmonize with the general furnishings, and at the same time the scheme must be so laid out that the direction of the light will produce the effects aimed at by the architect, since the appearance of mouldings may be entirely altered by the light source being wrongly placed.

In industrial operations it is often possible to obtain a local lighting effect by disposing of the lighting units so that the shadow or shadows are thrown in certain directions. These considerations have a very large bearing upon the size, type, and spacing of the units.

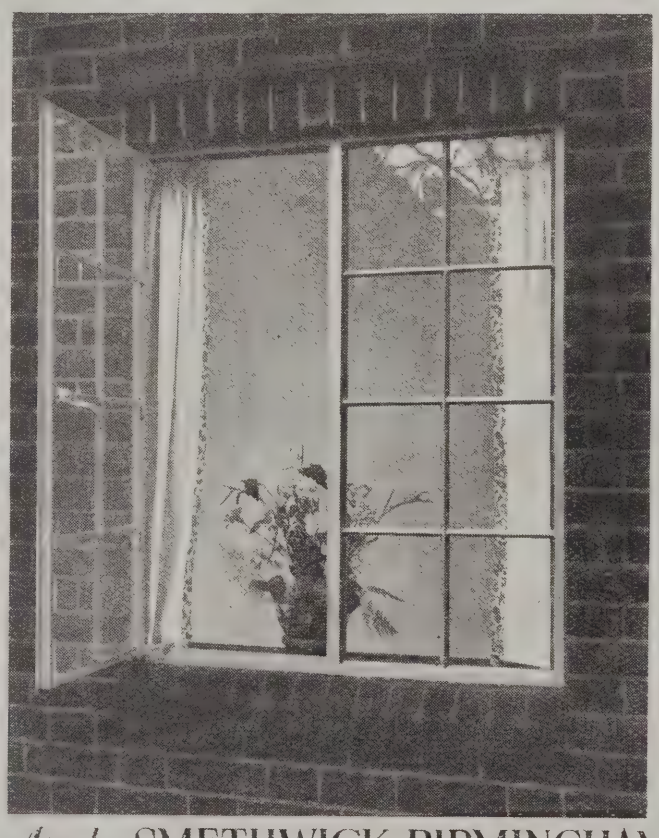
The majority of technical publications dealing with lighting and illumination introduce various methods for the mathematical calculation of illumination, but in practice it will be found that there are usually so many disturbing factors that such methods of working can only be used as a guide, and more often than not it is necessary to modify considerably the ultimate result on account of the relatively small number of standard sizes of lamps available. Furthermore, in many cases where large buildings are concerned it becomes desirable to utilize only two or three sizes of lamps, so that the results calculated are diverged from, to an even greater extent.

The following table of illumination intensities is valuable for general reference:—

	Foot Candles.
Art Exhibits	5–10
Bakery	3– 5
Ballroom	2– 5
Bench work, Rough	3– 5
,, ,, Fine	4– 8
Church	1– 3
Drill Hall	1– 3
*Factory:—	
Rough work, e.g., Forge	2– 4
Medium work, e.g., Automatics	3– 5
Fine work, e.g., Fine Lathes	4– 8
Extra Fine, e.g., Toolmaking	7–12
Garage	2– 3
Hospital, Corridors	.5– 1
,, Wards	1– 3
,, Operating Table	5–20
Hotel, Main Rooms	2– 4
,, Bedrooms	1.5–2
Laundry	3– 5
Library, Reading	4– 8
,, Shelves	.5– 1
Machine Shop. *See* Factory.	
*Mill	
Office, Typing	4– 8
,, General	3– 5
Picture Theatre	1–1.5
Public Hall	2– 4
Residence	2– 4
Restaurant	2– 5
School, Class-rooms, etc.	3– 5
,, Blackboard	5– 6
Shop, Light Goods	2– 4
,, Dark Goods	4– 8
Shop Windows, Small Grade	5–15
,, Ordinary	10–20
,, High Grade	15–30
Theatre, Lobby	2– 5
,, Auditorium	1– 2
Warehouse	1.5–2
Woodworking, Rough	2– 4
,, Fine	4– 6
Yard	.1–.8

* Extracts from an article by J. H. Adsell, M.Sc., in the July issue of "Beama."

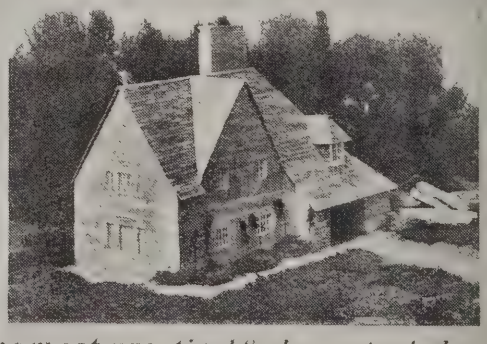
* Special requirements for various trades and machine



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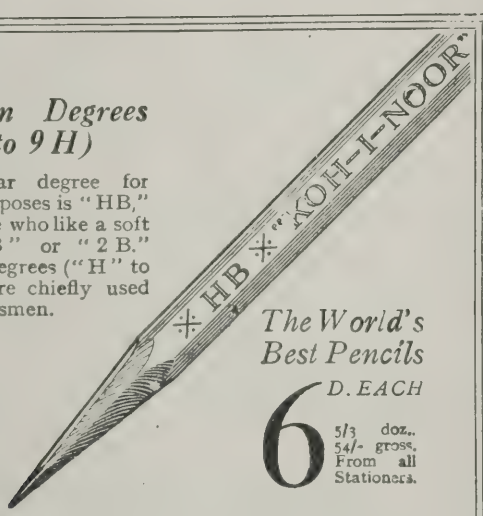
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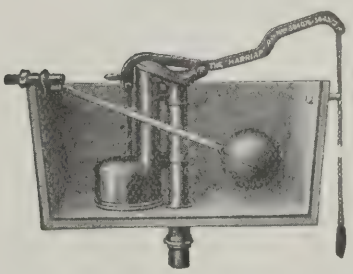
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Electrical Notes

Factory Lighting Recommendations.

A Departmental Committee on Lighting in Factories and Workshops was appointed by the Home Office in January, 1913. The Committee submitted a first report in May, 1915, on certain aspects of artificial lighting. They have now presented their second report (Cmd. 1418), which is devoted to the formulation of requirements "with a view to their inclusion in an order defining suitable lighting for all factories and workshops."

After discussing the effects of glare, shadow, and flickering, the Committee make the following recommendations :—

"Every light source (except one of low brightness) within a distance of 100 ft. from any person employed shall be so shaded from such person that no part of the filament, mantle, or flame is distinguishable through the shade, unless it be so placed that the angle between the line from the eye to an unshaded part of a source and a horizontal plane is not less than 20 degrees, or in the case of any person employed at a distance of 6 ft. or less from the source, not less than 30 degrees.

"Adequate means shall be taken, either by suitable placing or screening of the light sources, or by some other effective method, to prevent direct reflection of the light from a smooth or polished surface into the eyes of the worker.

"Adequate means shall be taken to prevent the formation of shadows which interfere with the safety or efficiency of any person employed.

"No light sources which flicker or undergo abrupt changes in candle-power in such manner as to interfere with the safety or efficiency of any person employed shall be used for the illumination of a factory or workshop.

"That, as regards existing installations, a reasonable time limit should be given before the above requirements become operative.

Electric Supply Problems.

The municipal engineer upon whom largely devolves the responsibility of offering cheap electric power for domestic and industrial consumption, has, as a rule, a sufficiently large plant to present typical problems of both a mechanical and electrical nature. He is, in addition, faced with the by no means small problem of reducing the costs to the minimum. Some of these problems were recently discussed by Mr. E. Cross, of the Rotherham Electricity Supply Department. Electrical generation aims not necessarily at the highest possible thermal efficiency, but rather at the lowest cost per unit consistent with reliability. Experience enables a close estimate to be made of the warrantable capital expenditure which may be incurred to effect a given saving of fuel at a given cost per unit of power. The most efficient stations are those in which the heat losses in the chimney gases and cooling water are least per unit of useful work delivered to the bars. Hence high steam conditions and reheating at intermediate stages make for improved efficiency. Increase in the vacuum effect a reduction in steam consumption and saving of coal, though the turbine efficiency itself may decrease slightly. The increase of vacuum, however, requires an increase in power to circulate the cooling water. This and other considerations show that it is not a good commercial proposition to strain out the last tenth of an inch of vacuum. The chief factors deciding the position of a large efficient power-station are proximity to load, to an abundant supply of cooling water, and to the colliery. A consideration of transmission and distribution losses follows, and the conclusion drawn is that with recent practice of high steam conditions the gain due to high vacuum is of less importance than when lower steam conditions ruled. From the fuel point of view high-grade fuels show sufficient advantages to offset the lower cost per B.Th.U. in the case of lower-grade coal. High-grade coal means higher combustion temperature, with improved thermal transmission. There is less ash, less carbon in the ash, and smaller costs of ash handling. It is a good commercial proposition to secure skilled and well-paid assistance to maintain the highest possible efficiency. Until the return of stable financial conditions it would be more advantageous to extend existing stations than proceed with schemes for large capital stations, especially as the present cost of plant is of the order of £25 per kilowatt, as against £10 to £12 prior to the war.



Current Prices of Materials

)ON PRICES.—The following information is intended to serve as a guide only, and should be confirmed by Trade inquiry. The Labour Rates are :urrent at the time of issue and are the Union Rates. The prices are for fine quality material, and are intended to cover delivery to contractors' yard or site of works. The measured prices are based upon the foregoing.

BOUR RATES AND ATERIAL PRICES.	MEASURED WORK PRICES.
VATOR AND CONCRETOR.	
itor, 1s. 9d. per hour.	Excavating and throwing out in ordinary earth,
:er, 1s. 9d. per hour.	not exceeding 6 ft. deep, basis price 4s. 6d. per
, 1s. 9d. per hour.	yd. cube.
rman, 1s. 11d. per hour.	Exceeding 6 ft., but under 12 ft., add 25 per cent.
der, 1s. 10d. per hour.	In stiff clay, add 50 per cent.
man, 8s. per shift.	In underpinning, add 120 per cent.
	In rock, including blasting, add 225 per cent.
	If basketed out, add 80 per cent to 150 per cent.
	Headings, including timbering, add 400 per cent.
	Return, fill, and ram, ordinary earth, 4s. 6d. per yd.
ı brick or stone, 2 in.,	Spread and level, including wheeling, 4s. 9d.
per yd.	per yd.
s ballast, 18s. 6d. per yd.	Planking, 7d. per ft. sup.
ıvel, 21s. 6d. per yd.	Do. over 10 ft. deep, add for each 5 ft. depth
id, 23s. per yd.	40 per cent.
d sand, 23s. per yd.	Hardcore, 2 in. ring, filled and rammed 4 in. thick,
ed ballast or gravel, add	5s. 6d. per yd. sup.
er cent. per yd.	Do. 6 in. thick, 7s. 6d. per yd. sup.
r, breeze, etc., prices	Puddling, 45s. per yd. cube.
rding to locality.	Cement concrete, 4-2-1, 71s. 6d. per yd. cube.
nd cement, 114s. per ton.	Do. 6-2-1, 57s. per yd. cube.
ı small lots, ex London	Do. in upper floors, add 15 per cent.
k, 124s. per ton.	Do. in ferro concrete work, add 20 per cent.
me, 79s. per ton.	Do. in underpinning, add 60 per cent.
charged extra at 2s. 6d.	Lias lime concrete, 50s. per yd. cube.
ı and credited when re-	Breeze concrete, 54s. per yd. cube.
ed at 2s.	Do. in lintols, etc., 4s. per ft. cube.
ort hire per day :	
: and horse, 37s.	
n motor lorry, £5 10s.	
m lorry, 5-ton, £5 15s.	
ler, 30s.	
m roller, £6.	
er cart, 35s.	
NER.	
rer. 1s. 9d. per hour.	Stoneware drains, jointed in cement, tested pipes,
rman, 1s. 11d. per hour.	4 in., 5s., 6 in. 7s. 6., 9 in. 9s., per ft.
ayer, 2s. 1d. per hour.	Cast-iron drains, jointed in lead, 4 in. 18s., 6 in.
er, 2s. 1½d. per hour.	26s. per ft.
man, 8s. per shift.	Note.—These prices include digging and filling for
	normal depths, and are average prices.
ware pipes, tested quality,	
.. 3s. 6d., 6-in. 5s. 3d.,	
.., 8s. 4d. per yd.	
iron pipes, coated, 9-ft.	
ths, 4-in. 12s., 6-in.	
. 6d. per yd.	
nd cement and sand, see	
xcavator" above.	
or caulking, 36s. per cwt.	
a, 11d. per lb.	
KLAYER.	
ayer, 2s. 1d. per hour.	Brickwork in stone lime mortar, Flettons, or equal,
rer, 1s. 9d. per hour.	£49 per rod.
lder, 1s. 10d. per hour.	Do. in cement do., £55 per rod.
	Do. in stocks, add 25 per cent. per rod.
	Do. in blues, add 320 per cent. per rod.
	Do. circular on plan, add 12½ per cent. per rod.
	Facings, fair 2d. per ft. sup. extra.
on stocks, 115s. per M.	Do. picked Flettons, 3d. per ft. sup. extra.
ns, 90s. per M.	Do. picked stocks, 3½d. per ft. sup. extra.
rdshire blue, 245s. per M.	Do. salt, white or ivory glazed, 6s. 6d. per ft. sup.
icks, 2½ in., 260s. per M.	extra.
l salt, white, and ivory	Tuck pointing, 10d. per ft. sup. extra.
tchers, £31 10s. per M.	Weather pointing, 3d. per ft. sup. extra.
eaders, £31 per M.	Granolithic and Cement paving, 1 in., 4s. 9d.
rs, extra, 110s. per M.	per yd. sup.
ds, less, £1 per M.	Do. 1½ in., 5s. 9d. per yd. sup.
nt and sand, see "Excava-	Do. 2 in., 6s. 6d. per yd. sup.
" above.	Fixing only damp course, ex rolls, 2d. per ft. sup.
grey stone, 78s. per ton.	Asphalt, damp course ½ in., 10s. per yd. sup.
lime mortar, 32s.	Do. vertical, 15s. per yd. sup.
yd.	Slate damp course, 1s. 9d. per ft. sup.
course, in rolls of 4½ in.	Asphalt paving in two thicknesses, ½ in., 12s. 6d.
per roll.	per yd.
t. 9s. 6d., 14 in. 12s.,	Do. skirting, 6 in., 1s. 6d. per ft.
n. 15s. 6d. per roll.	
)N (INCLUDING SLATE.)	
., 2s. 1d. per hour.	Hoisting and setting stone, 2s. 9d. per ft. cube.
xer, 2s. 2d. per hour.	Do. for every 10 ft. above 30 ft., add 15 per cent.
rer, 1s. 9d. per hour.	Plain face Portland bases, 2s. 10d. per ft. sup.
lder, 1s. 10d. per hour.	Do. circular, 4s. 4d. per ft. sup.
	Sunk face, 4s. per ft. sup.
	Do. circular, 4s. 9d. per ft. sup.
nd stone :	Joints, arch, 2s. 6d. per ft. sup.
tbed, 5s. 8d. per ft.	Do. sunk, 2s. 6d. per ft. sup.
ıbe.	Do. do. circular, 4s. 3d. per ft. sup.
ebed, 5s. 10d. per ft.	Circular-circular work, 20s. 6d. per ft. sup.
ıbe.	Plain moulding, straight, per inch of girth, 11d. per
h stone, 3s. 10d. per ft.	ft. run.
ıbe.	Do. circular, do. 1s. 3d. per ft. run.
eld, red, 8s.	Half sawing 1s. 4d. per ft. sup.
ial trade extras for large	Add to the foregoing prices if in York stone 35 per
ocks.)	cent.

LABOUR RATES AND MATERIAL PRICES.	MEASURED WORK PRICES
MASON—(continued)	
York paving, av. 2½ in. 3s. per	Do. Mansfield, 12½ per cent.
ft. sup.	Deduct for Bath, 33⅓ per cent.
York templates sawn, per ft.	Do for Chilmark, 5 per cent.
cube, 17s.	Setting 1 in. slate shelving in cement, 1s. 2d. per
Slate shelves, rubbed, 1 in.,	ft. sup.
3s. per ft. sup.	Rubbed round nosing to do., 9d. per ft. lin.
Cement and sand, see "Excavator," etc., above.	York steps, rubbed T. & R., 34s. ft. cub. fixed.
SLATING AND TILING.	
Slater, 2s. per hour.	Slating, 3 in. gauge, compo nails, Portmadoc or
Tiler, 2s. per hour.	equal:
Scaffolder, 1s. 10d. per hour.	Ladies 100s., Countess 115s., Duchess 120s. per
Labourer, 1s. 9d. per hour.	square.
N.B.—Tiling is often "Piecework."	Westmorland, in diminishing courses, 160s. per square.
	Cornish do., 155s. per square.
	Add, if vertical, 12s. per square approx.
	Add, if with copper nails, 7½ per cent. per square approx.
Slates, 1st quality, per M. : Portmadoc Ladies £23, Countess £43, Duchess £59.	Double course at eaves, 1s. 4d. per ft. approx.
Clips, lead, 4½d. per lb.	Tiling, 4 in. gauge, 5th course nailed, in hand-made tiles, average 130s. per square.
Clips, copper, 2s. 5d. per lb.	Do., machine-made do., 118s. per square.
Nails, compo, 38s. per cwt.	Fixing lead soakers, 11d. per dozen.
Nails, copper, 2s. 4d. per lb.	
Cement and sand, see "Excavator," etc., above.	
Handmade tiles, 180s. per M.	
Machine-made tiles, 160s. per M.	
Westmorland slates, large 258s. per ton, Peggies 200s. per ton.	
CARPENTER AND JOINER.	
Carpenter, 2s. 1d. per hour.	Fir, fixed in wall plates, lintels, sleepers, etc.,
Joiner, 2s. 1d. per hour.	9s. per ft. cube.
Labourer, 1s. 9d. per hour.	Do., framed in floors, roofs, etc., 10s. 9d. per ft. cube.
	Do., framed in trusses, etc., including ironwork, 13s. per ft. cube.
	Pitch pine, add 33⅓ per cent.
Timber, average prices, ex-Dock, and d/d works or site, London Standard.	Fixing only boarding in floors, roofs, etc., 18s. per sq.
	Sarking felt laid, 1-ply 1s. 11d., 3-ply 2s. 6d. per yd.
	Centering for concrete, etc., including horsing and striking, 75s. per sq.
Scandinavian, etc. (equal to 2nds) :	Slate battening, 30s. per sq.
7×3, £36 per std., to 11×4, £64 per std.	1 in. deal gutter board on firring, 95s. per sq.
2s. 9d. to 5s. per ft. cube.	1¼ in. moulded casements in 4 sqs., glazing beads and hung, 3s. 3d. per ft. sup.
Memel or Equal.	2 in. do. do., 3s. 6d. per ft. sup.
Slightly less than foregoing.	Deal cased frames, oak sills, 2 in. D.H. sashes, brass pullies, etc., 4s. 9d. per ft. sup.
Flooring P.E., 1-in., 38s. per sq.	Doors, 4 pan, sq. b.s., 2 in. 3s. 3d. per ft. sup.
Do. T. and G., 1 in. 39s. per sq.	Do. do. do., 1¼ in. 3s. per ft. sup.
Planed Boards, 1 in.×11 in., £63 per std.	Do. do., moulded b.s., 2 in. 3s. 9d. per ft. sup.
Wainscot oak, 3s. 8d. per ft. sup. of 1 in.	Do. do. do., 1½ in. 3s. 4d. per ft. sup.
Mahogany, 3s. 3d. per ft. sup. of 1 in.	If in oak multiply 6 times.
Do. Cuba, 4s. 3d. per ft. sup. of 1 in.	If in mahogany multiply 6 times.
Teak, 3s. 9d. per ft. sup. of 1 in.	If in teak multiply 7½ times.
	Wood block flooring, standard blocks, laid in Mastic, Herringbone—deal, ¾ in. 15s., 1 in. 18s. 1¼ in. 20s. per yd. sup., average.
	Staircase work, deal :
	1 in. riser, 1¼ in. tread, fixed, 4s. 3d. per ft. sup.
	2 in. deal strings, fixed, 4s. 6d. per ft. sup.
PLUMBER AND RAIN-WATER GOODS.	
Plumber, 2s. 1½d. per hour.	Milled lead and labour in gutters, flashings, etc.
Mate or labourer, 1s. 9d. per hour.	62s.
	Lead pipe, fixed, including running joints, bends, and tacks, ½ in., 1s. 7d. per ft.
	Do., ¾ in., 2s. 1d. per ft.
	Do., 1 in., 2s. 8d. per ft.
	Do., 1¼ in., 3s. 4d. per ft.
	Lead waste or soil, fixed as above, complete, 2½ in. 5s. 6d. per ft.
	Do., 3 in., 6s. 6d. per ft.
	Do., 4 in., 7s. 3d. per ft.
Lead, milled sheet, 37s. per cwt.	Cast-iron R.W. pipe, at 24 lb. per length, jointed in red lead, 2½ in., 2s. 9d. per ft.
Do. drawn pipes, 37s. 6d. per cwt.	Do., 3 in., 3s. 3d. per ft.
Do. soil pipe, 40s. per cwt.	Do., 4 in., 3s. 6d. per ft.
Do. scrap, 19s. per cwt.	Cast-iron H.R. gutter, fixed, with all cups, etc. 4 in., 2s. 4d. per ft.
Copper, sheet 2s. 4d. per lb.	Do., O.G., 4 in., 3s. per ft.
Solder, plumbers, 1s. per lb.	Cast-iron soil pipe, fixed with caulked joints and all
Do. fine, 1s. 4d. per lb.	ears, etc., 4 in., 6s. 6d. per ft.
Cast-iron pipes, etc. :	Do., 3 in., 5s. 6d. per ft.
L.C.C. soil, 3 in. 9s. 3d., 4 in. 11s. 6d. per yd.	Fixing only :
R.W.P., 2½ in. 6s. 3d., 3 in. 7s. 9d., 4 in. 10s. 3d. per yd.	W.C. pans and all joints, P. or S., and including water waste preventers, 55s. each.
Gutter, 4 in. H.R., 5s., 4 in. O.C., 5s. 7d. per yd.	Baths only, with all joints, 50s.
	Lavatory basins only, with all joints on brackets, 42s. each.

LABOUR RATES AND MATERIAL PRICES.	MEASURED WORK PRICES.
GLAZIER.	
Glazier, 2s. per hour.	
Glass : 4th in crates :	
Clear, 21 oz. 6½d., 26 oz. 8¼d.	Glazing, in putty, clear sheet, 21 oz. 1s. 4d., 26 oz. 1s. 8d.
Cathedral, white, 6½d. per ft.	Glazing in beads, 21 oz. 1s. 6d., 26 oz. 1s. 10d. per ft.
Pold, plate, ¼ in., 4s. 9d. per ft. and up. Small sizes, ex "scrap" stock, 2s. 6d. per ft. and up.	Patent glazing in rough plate, normal span, 1s. 11d. to 2s. 3d. per ft.
Rough plate, $\frac{3}{16}$ in., 7d., ¼ in. 7½d. per ft.	Lead light, plain, med. sqs. 21 oz., usual domestic sizes, fixed, 4s., and up, per ft. sup.
Linseed oil putty, 19s. per cwt.	
PLASTERER.	
Plasterer, 2s. 1d. per hour.	
Labourer, 1s. 9d. per hour.	Lathing, with sawn laths, 2s. 1d. per yd.
——	Metal lathing, 2s. 5d. per yd.
	Floating in Portland, 1 to 3, for tiling or wood-block, ¾ in., 3s. 3d. per yd.
Chalk lime, 81s. per ton.	Do., vertical, 3s. 4d. per yd.
Hair, 31s. per cwt.	Render, on brickwork, 1 to 3, 3s. 3d. per yd.
Sand and cement, see "Excavator," etc., above.	Render in Portland and set in fine stuff, 4s. 3d. per yd.
Lime putty, 6s. per cwt.	Render, float, and set, trowelled, 3s. 6d. per yd.
Hair mortar, 42s. per yd.	Render and set in Sirapite, 3s. 10d. per yd.
Fine stuff, 45s. 9d. per yd.	Do., in Thistle plaster, 3s. 10d. per yd.
Sawn laths, 5s. per bdl.	Extra, if on but not including lathing, any of foregoing, 8d. per yd.
Keene's cement, 98s. per ton.	Extra, if on ceilings, 8d. per yd.
Sirapite, 75s. per ton.	Angles, rounded Keenes on Keenes, 10d. per ft. lin.
Do. fine, 75s. 6d. per ton.	Plain cornices, in plaster, per inch girth, including dubbing out, etc., 3½d. per ft. lin.
Plaster, 78s. per ton.	White glazed tiling set in Portland and jointed in Parian, 40s. per yd.
Do. fine, 79s. per ton.	
Thistle plaster, 73s. per ton.	
Lath nails, 5d. per lb.	
DECORATOR.	
Painter, 2s. per hour.	
Labourer, 1s. 9d. per hour.	Lime whiting 2 coats 6½d. per yd. sup.
French polisher, 2s. 3d. per hour.	Wash, stop, and whiten, 10d. per yd. sup
Paperhanger, 2s. 1d. per hour.	Do., and 2 coats distemper with proprietary distemper, 1s. 3d. per yd. sup.
——	Knot, stop, and prime, 10d. per yd. sup.
	Plain painting, including mouldings, and on plaster or joinery, 1st coat, 1s. 2d. per yd. sup.
Genuine white lead, 60s. per cwt.	Do., subsequent coats, 1s. 1d. per yd. sup.
Linseed oil raw, 4s. per gall.	Do., enamel coat, 1s. 11d. per yd. sup.
Do. boiled, 4s. 4d. per gall.	Brush, grain, and 2 coats varnish, 5s. 6d. per yd. sup.
Turpentine, 10s. 3d. per gall.	Figured do. do., 8s. per yd. sup.
Liquid driers, 14s. per gall.	French polishing, 1s. 9d. per ft. sup.
Knotting, 36s. per gall.	Stripping old paper and preparing, 2s. per piece.
Distemper, washable, in ordinary colours, 50s. per cwt. and up.	Hanging paper, ordinary, 2s. per piece.
Double size, 6s. per firkin.	Do., fine, 2s. 8d. and upwards per piece.
Pumice stone, 9d. per lb.	Varnishing paper, 1 coat, 14s. per piece.
Hard stopping, 9d. per lb	Canvas, strained and fixed, 3s. per yd. sup.
Varnish, hard oak, 15s. 6d. per gall. and up.	Varnishing, hard oak, 1st coat, 1s. 7d. yd. sup.
Do. Outside do., 16s. per gall. and up.	Do., each subsequent coat, 1s. 5d. per yd. sup.

LABOUR RATES AND MATERIAL PRICES.	MEASURED WORK PRICES.
DECORATOR (continued)	
Varnish, Copal, 21s. per gall. and up.	
Do. Flat, 21s. per gall.	
Do. Paper, 19s. per gall.	
French polish, 29s. per gall.	
Ready mixed paints, 13s. 6d. per gall. and up.	
STEELWORK, SMITHWORK, etc.	
Smith, Weekly Rate = 2s. 2¼d. per hour.	Mild steel in trusses, etc., erected, £37 per ton.
Mate, Do. = 1s. 6¼d. + 12½%.	Do., in small sections as reinforcement, £28 per ton
Erector, 2s. 2d. per hour.	Do., in compounds, £29 per ton.
Fitter, 2s. 2d. per hour.	Do., in bar or rod reinforcement, £29 per ton.
Labourer, 1s. 10d. per hour.	Wrot. iron in chimney bars, etc., including building in, 54s. per cwt.
——	Do., in light railings and balusters, 58s. per cwt.
	Fixing only corrugated sheeting, including washer and driving screws, 2s. 3d. per yd.
Mild steel in British standard sections, £25 per ton.	
Sheet steel :	
Flat sheets, black, £40 per ton.	
Do. Galvd., £41 per ton.	
Corrugated sheets, black.	
Do. Galvd., £31 per ton.	
Driving screws, galvd., 3s. 9d. per grs.	
Washers, galvd., 2s. per grs.	
Bolts and nuts, 60s. per cwt. and up.	
SUNDRIES.	
Fibre or wood pulp boardings, 5d. per ft. sup.	Fibre boardings, fixed on, but not including studs or grounds, 9½d. per ft. sup.
Plaster Board, 2s. 2d. per yd. sup.	Plaster Board, fixed as last, 5s. 8d. per yd. sup.
Asbestos sheeting, $\frac{5}{32}$ in., grey flat, 3s. 6d. per yd. sup.	Asbestos sheeting, fixed as last, flat, 5s. 10d. per yd. sup.
Do. corrugated, 6s. per yd. sup.	Do. do., corrugated, 8s. 9d. per yd. sup.
Asbestos Composition. Flooring :	Laid in two coats, average ¾ in. thick, in plain colours, 17s. 6d. per yd. sup.
Metal casements for wood frames, domestic sizes, 3s. 3d. per ft. sup.	Hanging only metal casements in, but not including wood frames, 4s. 6d. each.
Do. in metal frames, 4s. per ft. sup.	Building in metal casement frames, 8d. per ft. sup.
Asbestos cement slates or tiles, $\frac{5}{32}$ in. punched per M., grey £25 10s., red £27 10s.	Asbestos slating or tiling on, but not including battens, or boards, plain "diamond" per square, grey 70s., red 72s.
Waterproofing compounds for cement.	Add about 75 per cent. to 100 per cent. to the cost of cement used.

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New Memorials for Aylesbury

On September 15 the Marquis of Lincolnshire will unveil the new war memorial which has been erected in the market place at Aylesbury. A conspicuous feature of the memorial is the "Cross of Sacrifice," with the crusaders' sword in bronze, a replica of those erected in the British cemeteries in France. Three bronze panels at the foot of the cross immortalize the names of nearly 230 Aylesbury men who fell in the war. The dedication inscription reads, "Their memory lives for evermore."

An appeal is being made for funds to complete a statue of Lord Beaconsfield, which it is proposed to place on one side of the memorial. Lord Beaconsfield was closely connected with the county of Bucks all his life, and represented it in the House of Commons from 1847 to 1876, during which time he was twice Prime Minister, and twice Chancellor of the Exchequer. The statue has been cast, the likeness of Lord Beaconsfield being taken from the portrait painted by Sir Francis Grant, President of the Royal Academy in 1852, and a bust by Mr. W. Behnes, made in 1847. The sculptor is Mr. Charles Henry Fehr.

Discoveries in Palestine

Further progress has been made in the excavations which are being carried out in Palestine by the various archæological societies. At Ascalon the great cloisters with which Herod the Great adorned his birthplace have been identified and excavated. A local museum of sculptures and carvings has been organized. Excavations have commenced at Beisan. The exploration of Tiberias and further excavations in the vicinity of Capernaum have been continued. At the latter site a hexagonal court with mosaic pavement and ambulatory has been uncovered. At Cæsarea the discovery of sculpture and pottery is announced. On this site measures are being taken for the conservation of such important ancient buildings as survive and for the organization of a local museum.

Publications Received

Lettering. By Arthur E. Payne, A.R.C.A. Lond. Price 3s. 6d. net. B. T. Batsford, Ltd., 94 High Holborn, London.

"Reinforced Concrete Construction. Part II." By M. T. Cantell, Licentiate R.I.B.A., Associate Surveyors' Institution. Second edition. Price 16s. net. E. and F. N. Spon, Ltd., 57 Haymarket, London, S.W.1.

Trade Possibilities in South Africa

Mr. W. G. Wickham, His Majesty's Senior Trade Commissioner in South Africa, is at present in this country on an official visit, and is prepared to interview at the Department of Overseas Trade, from September 1 to September 16, firms who desire to obtain information as to trade possibilities in the Union of South Africa. Mr. Wickham will be pleased to meet manufacturers and merchants who may wish to consult him in regard to steps to be taken for opening up trade, and among the matters on which he is prepared to give information and advice are the general state of trade in South Africa, method of marketing and distributing of goods, terms of payment, rates of customs' duties, and general information as to openings existing for British goods. London firms who wish to consult Mr. Wickham should communicate immediately with the Department of Overseas Trade, 35 Old Queen Street, London, S.W.1, quoting the reference 3092/T.G., and indicating briefly the subject on which the interview is desired. Mr. Wickham will subsequently visit some of the principal industrial centres of the United Kingdom.

Current Prices of Materials

DON PRICES.—The following information is intended to serve as a guide only, and should be confirmed by Trade inquiry. The Labour Rates are current at the time of issue and are the Union Rates. The prices are for fine quality material, and are intended to cover delivery to contractors' yard or site of works. The measured prices are based upon the foregoing.

BOUR RATES AND ATERIAL PRICES.	MEASURED WORK PRICES.
VATOR AND CONCRETOR.	
ator, 1s. 7½d. per hour.	Excavating and throwing out in ordinary earth, not exceeding 6 ft. deep, basis price 4s. 4d. per yd. cube.
er, 1s. 7½d. per hour.	Exceeding 6 ft., but under 12 ft., add 25 per cent.
, 1s. 7½d. per hour.	In stiff clay, add 50 per cent.
man, 1s. 9½d. per hour.	In underpinning, add 120 per cent.
ler, 1s. 8½d. per hour.	In rock, including blasting, add 225 per cent.
nan, 8s. per shift.	If basketed out, add 80 per cent to 150 per cent.
	Headings, including timbering, add 400 per cent.
	Return, fill, and ram, ordinary earth, 4s. 4d per yd.
brick or stone, 2 in., per yd.	Spread and level, including wheeling, 4s. 6d. per yd.
s ballast, 18s. 6d. per yd.	Planking, 6d. per ft. sup.
vel, 21s. 6d. per yd.	Do. over 10 ft. deep, add for each 5 ft. depth 40 per cent.
d, 23s. per yd.	Hardcore, 2 in. ring, filled and rammed 4 in. thick, 5s. per yd. sup.
l sand, 23s. per yd.	Do. 6 in. thick, 7s. per yd. sup.
d ballast or gravel, add r cent. per yd.	Puddling, 45s. per yd. cube.
, breeze, etc., prices ding to locality.	Cement concrete, 4-2-1, 71s. per yd. cube.
d cement, 114s. per ton.	Do. 6-2-1, 57s. per yd. cube.
small lots, ex London	Do. in upper floors, add 15 per cent.
, 124s. per ton.	Do. in ferro concrete work, add 20 per cent.
ne, 79s. per ton.	Do. in underpinning, add 60 per cent.
harged extra at 2s. 6d. and credited when re- d at 2s.	Lias lime concrete, 50s. per yd. cube.
	Breeze concrete, 54s. per yd. cube.
ort hire per day :	Do. in lintols, etc., 4s. per ft. cube.
and horse, 37s.	
motor lorry, £5 10s.	
n lorry, 5-ton, £5 15s.	
er, 30s.	
n roller, £6.	
r cart, 35s.	
IER.	
er. 1s. 7½d. per hour.	Stoneware drains, jointed in cement, tested pipes, 4 in., 5s., 6 in. 7s. 6., 9 in. 9s., per ft.
man, 1s. 9½d. per hour.	Cast-iron drains, jointed in lead, 4 in. 18s., 6 in. 26s. per ft.
yer, 2s. 0½d. per hour.	Note.—These prices include digging and filling for normal depths, and are average prices.
r, 2s. 1d. per hour.	
nan, 8s. per shift.	
are pipes, tested quality, 3s. 6d., 6-in. 5s. 3d., 8s. 4d. per yd.	
on pipes, coated, 9-ft. as, 4-in. 12s., 6-in. 3d. per yd.	
d cement and sand, see avator" above.	
caulking, 36s. per cwt. 11d. per lb.	
LAYER.	
er, 2s. 0½d. per hour.	Brickwork in stone lime mortar, Flettons, or equal, £49 per rod.
r, 1s. 7½d. per hour.	Do. in cement do., £55 per rod.
er, 1s. 8½d. per hour.	Do. in stocks, add 25 per cent. per rod.
	Do. in blues, add 320 per cent. per rod.
	Do. circular on plan, add 12½ per cent. per rod.
stocks, 115s. per M.	Facings, fair 2d. per ft. sup. extra.
, 90s. per M.	Do. picked Flettons, 3d. per ft. sup. extra.
shire blue, 245s. per M.	Do. picked stocks, 3½d. per ft. sup. extra.
ks, 2½ in., 260s. per M.	Do. salt, white or ivory glazed, 6s. 6d. per ft. sup. extra.
salt, white, and ivory	Tuck pointing, 10d. per ft. sup. extra.
ners, £31 10s. per M.	Weather pointing, 3d. per ft. sup. extra.
iers, £31 per M.	Granolithic and Cement paving, 1 in., 4s. 9d. per yd. sup.
extra, 110s. per M.	Do. 1½ in., 5s. 9d. per yd. sup.
less, £1 per M.	Do. 2 in., 6s. 6d. per yd. sup.
and sand, see "Excava- above.	Fixing only damp course, ex rolls, 2d. per ft. sup.
ey stone, 78s. per ton.	Asphalt, damp course ½ in., 10s. per yd. sup.
lime mortar, 32s.	Do. vertical, 15s. per yd. sup.
ourse, in rolls of 4½ in. r roll.	Slate damp course, 1s. 9d. per ft. sup.
9s. 6d., 14 in. 12s., 15s. 6d. per roll.	Asphalt paving in two thicknesses, ¾ in., 12s. 6d. per yd.
	Do. skirting, 6 in., 1s. 6d. per ft.
(INCLUDING SLATE.)	
s. 0½d. per hour.	Hoisting and setting stone, 2s. 9d. per ft. cube.
r, 2s. 1½d. per hour.	Do. for every 10 ft. above 30 ft., add 15 per cent.
r, 1s. 7½d. per hour.	Plain face Portland bases, 2s. 10d. per ft. sup.
r, 1s. 8½d. per hour.	Do. circular, 4s. 4d. per ft. sup.
	Sunk face, 4s. per ft. sup.
stone :	Do. circular, 4s. 9d. per ft. sup.
ed, 5s. 8d. per ft.	Joints, arch, 2s. 6d. per ft. sup.
	Do. sunk, 2s. 6d. per ft. sup.
ed, 5s. 10d. per ft.	Do. do. circular, 4s. 3d. per ft. sup.
	Circular-circular work, 20s. 6d. per ft. sup.
itone, 3s. 10d. per ft.	Plain moulding, straight, per inch of girth, 11d. per ft. run.
	Do. circular, do. 1s. 3d. per ft.run.
l, red, 8s.	Half sawing 1s. 4d. per ft. sup.
trade extras for large ks.	Add to the foregoing prices if in York stone 35 per cent.

LABOUR RATES AND MATERIAL PRICES.	MEASURED WORK PRICES
MASON—(continued)	
York paving, av. 2½ in. 3s. per ft. sup.	Do. Mansfield, 12½ per cent.
York templates sawn, per ft. cube, 17s.	Deduct for Bath, 33⅓ per cent.
Slate shelves, rubbed, 1 in., 3s. per ft. sup.	Do for Chilmark, 5 per cent.
Cement and sand, see "Excavator," etc., above.	Setting 1 in. slate shelving in cement, 1s. 2d. per ft. sup.
	Rubbed round nosing to do., 8d. per ft. lin.
	York steps, rubbed T. & R., 34s. ft. cub. fixed.
SLATING AND TILING.	
Slater, 1s. 11½d. per hour.	Slating, 3 in. gauge, compo nails, Portmadoc or equal:
Tiler, 1s. 11½d. per hour.	Ladies 100s., Countess 115s., Duchess 120s. per square.
Scaffolder, 1s. 8½d. per hour.	Westmorland, in diminishing courses, 160s. per square.
Labourer, 1s. 9d. per hour.	Cornish do., 155s. per square.
N.B.—Tiling is often "Piecework."	Add, if vertical, 12s. per square approx.
	Add, if with copper nails, 7½ per cent. per square approx.
Slates, 1st quality, per M. : Portmadoc Ladies £23, Countess £43, Duchess £59.	Double course at eaves, 1s. 4d. per ft. approx.
Clips, lead, 4½d. per lb.	Tiling, 4 in. gauge, 5th course nailed, in hand-made tiles, average 130s. per square.
Clips, copper, 2s. 5d. per lb.	Do., machine-made do., 118s. per square.
Nails, compo, 38s. per cwt.	Fixing lead soakers, 11d. per dozen.
Nails, copper, 2s. 4d. per lb.	
Cement and sand, see "Excavator," etc., above.	
Handmade tiles, 180s. per M.	
Machine-made tiles, 160s. per M.	
Westmorland slates, large 258s. per ton, Peggies 200s. per ton.	
CARPENTER AND JOINER.	
Carpenter, 2s. 0½d. per hour.	Fir, fixed in wall plates, lintels, sleepers, etc., 9s. per ft. cube.
Joiner, 2s. 0½d. per hour.	Do., framed in floors, roofs, etc., 10s. 9d. per ft. cube.
Labourer, 1s. 7½d. per hour.	Do., framed in trusses, etc., including ironwork, 13s. per ft. cube.
	Pitch pine, add 33⅓ per cent.
Timber, average prices, ex-Dock, and d/d works or site, London Standard.	Fixing only boarding in floors, roofs, etc., 18s. per sq.
	Sarking felt laid, 1-ply 1s. 11d., 3-ply 2s. 6d. per yd.
Scandinavian, etc. (equal to 2nds) :	Centering for concrete, etc., including horsing and striking, 75s. per sq.
7 × 3, £36 per std., to 11 × 4, £64 per std.	Slate battening, 28s. per sq.
2s. 9d. to 5s. per ft. cube.	1 in. deal gutter board on firring, 95s per sq.
Memel or Equal.	1¼ in. moulded casements in 4 sqs., glazing beads and hung, 3s. 3d. per ft. sup.
Slightly less than foregoing.	2 in. do. do., 3s. 6d. per ft. sup.
Flooring P.E., 1-in., 38s. per sq.	Deal cased frames, oak sills, 2 in. D.H. sashes, brass pullies, etc., 4s. 9d. per ft. sup.
Do. T. and G., 1 in. 39s. per sq.	Doors, 4 pan, sq. b.s., 2 in. 3s. 3d. per ft. sup.
Planed Boards, 1 in. × 11 in., £63 per std.	Do. do. do., 1½ in. 3s. per ft. sup.
Wainscot oak, 3s. 8d. per ft. sup. of 1 in.	Do. do., moulded b.s., 2 in. 3s. 9d. per ft. sup.
Mahogany, 3s. 3d. per ft. sup. of 1 in.	Do. do. do., 1½ in. 3s. 4d. per ft. sup.
Do. Cuba, 4s. 3d. per ft. sup. of 1 in.	If in oak multiply 6 times.
Teak, 3s. 9d. per ft. sup. of 1 in.	If in mahogany multiply 6 times.
	If in teak multiply 7½ times.
	Wood block flooring, standard blocks, laid in Mastic, Herringbone—deal, ¾ in. 15s., 1 in. 18s. 1½ in. 20s. per yd. sup., average.
	Staircase work, deal :
	1 in. riser, 1½ in. tread, fixed, 4s. 3d. per ft. sup.
	2 in. deal strings, fixed, 4s. 6d. per ft. sup.
PLUMBER AND RAIN-WATER GOODS.	
Plumber, 2s. 1d. per hour.	Milled lead and labour in gutters, flashings, etc. 62s.
Mate or labourer, 1s. 7½d. per hour.	Lead pipe, fixed, including running joints, bends, and tacks, ½ in., 1s. 7d. per ft.
	Do., ¾ in., 2s. 1d. per ft.
	Do., 1 in., 2s. 8d. per ft.
	Do., 1¼ in., 3s. 4d. per ft.
	Lead waste or soil, fixed as above, complete, 2½ in. 5s. 6d. per ft.
	Do., 3 in., 6s. 6d. per ft.
Lead, milled sheet, 37s. 6d. per cwt.	Do., 4 in., 7s. 3d. per ft.
Do. drawn pipes, 38s. per cwt.	Cast-iron R.W. pipe, at 24 lb. per length, jointed in red lead, 2½ in., 2s. 9d. per ft.
Do. soil pipe, 40s. 6d. per cwt.	Do., 3 in., 3s. 3d. per ft.
Do. scrap, 19s. per cwt.	Do., 4 in., 3s. 6d. per ft.
Copper, sheet 2s. 4d. per lb.	Cast-iron H.R. gutter, fixed, with all cups, etc. 4 in., 2s. 4d. per ft.
Solder, plumbers, 1s. per lb.	Do., O.G., 4 in., 3s. per ft.
Do. fine, 1s. 4d. per lb.	Cast-iron soil pipe, fixed with caulked joints and all ears, etc., 4 in., 6s. 6d. per ft.
Cast-iron pipes, etc. :	Do., 3 in., 5s. 6d. per ft.
L.C.C. soil, 3 in. 9s. 3d., 4 in. 11s. 6d. per yd.	Fixing only :
R.W.P., 2½ in. 6s. 3d., 3 in. 7s. 9d., 4 in. 10s. 3d. per yd.	W.C. pans and all joints, P. or S., and including water waste preventers, 55s. each.
Gutter, 4 in. H.R., 5s., 4 in. O.G., 5s. 7d. per yd.	Baths only, with all joints, 50s.
	Lavatory basins only, with all joints on brackets, 42s. each.

LABOUR RATES AND MATERIAL PRICES.	MEASURED WORK PRICES.
GLAZIER.	
Glazier, 2s. per hour.	
Glass : 4th in crates :	
Clear, 21 oz. 6¾d., 26 oz. 8¼d.	Glazing, in putty, clear sheet, 21 oz. 1s. 4d., 26 oz. 1s. 8d.
Cathedral, white, 6½d. per ft.	
Pold, plate, ¼ in., 4s. 9d. per ft. and up. Small sizes, ex "scrap" stock, 2s. 6d. per ft. and up.	Glazing in beads, 21 oz. 1s. 6d., 26 oz. 1s. 10d. per ft.
Rough plate, $\frac{3}{16}$ in., 7d., ¼ in. 7¼d. per ft.	Patent glazing in rough plate, normal span, 1s. 11d. to 2s. 3d. per ft.
Linseed oil putty, 19s. per cwt.	Lead light, plain, med. sqs. 21 oz., usual domestic sizes, fixed, 4s., and up, per ft. sup.
PLASTERER.	
Plasterer, 2s. 0½d. per hour.	
Labourer, 1s. 7½d. per hour.	
	Lathing, with sawn laths, 2s. 1d. per yd.
	Metal lathing, 2s. 5d. per yd.
	Floating in Portland, 1 to 3, for tiling or wood-block, ¾ in., 3s. 3d. per yd.
	Do., vertical, 3s. 4d. per yd.
	Render, on brickwork, 1 to 3, 3s. 3d. per yd.
	Render in Portland and set in fine stuff, 4s. 3d. per yd.
	Render, float, and set, trowelled, 3s. 6d. per yd.
	Render and set in Sirapite, 3s. 10d. per yd.
	Do., in Thistle plaster, 3s. 10d. per yd.
	Extra, if on but not including lathing, any of foregoing, 8d. per yd.
	Extra, if on ceilings, 8d. per yd.
	Angles, rounded Keenes on Keenes, 10d. per ft. lin.
	Plain cornices, in plaster, per inch girth, including dubbing out, etc., 3½d. per ft. lin.
	White glazed tiling set in Portland and jointed in Parian, 40s. per yd.
Chalk lime, 81s. per ton.	
Hair, 31s. per cwt.	
Sand and cement, see "Excavator," etc., above.	
Lime putty, 6s. per cwt.	
Hair mortar, 42s. per yd.	
Fine stuff, 45s. 9d. per yd.	
Sawn laths, 5s. per bdl.	
Keene's cement, 98s. per ton.	
Sirapite, 75s. per ton.	
Do. fine, 75s. 6d. per ton.	
Plaster, 78s. per ton.	
Do. fine, 79s. per ton.	
Thistle plaster, 73s. per ton.	
Lath nails, 5d. per lb.	
DECORATOR.	
Painter, 1s. 11½d. per hour.	
Labourer, 1s. 7½d. per hour.	
French polisher, 2s. 2½d. per hour.	
Paperhanger, 2s. 0½d. per hour.	
	Lime whiting 2 coats 6½d. per yd. sup.
	Wash, stop, and whiten, 10d. per yd. sup
	Do., and 2 coats distemper with proprietary distemper, 1s. 3d. per yd. sup.
	Knot, stop, and prime, 10d. per yd. sup.
	Plain painting, including mouldings, and on plaster or joinery, 1st coat, 1s. 2d. per yd. sup.
	Do., subsequent coats, 1s. 1d. per yd. sup.
	Do., enamel coat, 1s. 11d. per yd. sup.
	Brush, grain, and 2 coats varnish, 5s. 6d. per yd. sup.
	Figured do. do., 8s. per yd. sup.
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	Hanging paper, ordinary, 2s. per piece.
	Do., fine, 2s. 8d. and upwards per piece.
	Varnishing paper, 1 coat, 14s. per piece.
	Canvas, strained and fixed, 3s. per yd. sup.
	Varnishing, hard oak, 1st coat, 1s. 7d. yd. sup.
	Do., each subsequent coat, 1s. 5d. per yd. sup.
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Linseed oil raw, 4s. per gall.	
Do. boiled, 4s. 4d. per gall.	
Turpentine, 10s. 3d. per gall.	
Liquid driers, 14s. per gall.	
Knotting, 36s. per gall.	
Distemper, washable, in ordinary colours, 50s. per cwt. and up.	
Double size, 6s. per firkin.	
Pumice stone, 9d. per lb.	
Hard stopping, 9d. per lb	
Varnish, hard oak, 15s. 6d. per gall. and up.	
Do. Outside do., 16s. per gall. and up.	

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Erector, 2s. 2d. per hour.	Do., in compounds, £29 per ton.
Fitter, 2s. 2d. per hour.	Do., in bar or rod reinforcement, £29 per ton.
Labourer, 1s. 10d. per hour.	Wrot. iron in chimney bars, etc., including building in, 54s. per cwt.
	Do., in light railings and balusters, 58s. per cwt.
	Fixing only corrugated sheeting, including washer and driving screws, 2s. 3d. per yd.
Mild steel in British standard sections, £25 per ton.	
Sheet steel :	
Flat sheets, black, £40 per ton.	
Do. Galvd., £41 per ton.	
Corrugated sheets, black.	
Do. Galvd., £31 per ton.	
Driving screws, galvd., 3s. 9d. per grs.	
Washers, galvd., 2s. per grs.	
Bolts and nuts, 60s. per cwt. and up.	
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Asbestos sheeting, $\frac{5}{32}$ in., grey flat, 3s. 6d. per yd. sup.	Asbestos sheeting, fixed as last, flat, 5s. 10d. per yd. sup.
Do. corrugated, 6s. per yd. sup.	Do. do., corrugated, 8s. 9d. per yd. sup.
Asbestos Composition. Flooring :	Laid in two coats, average ¾ in. thick, in plain colours, 17s. 6d. per yd. sup.
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Do. in metal frames, 4s. per ft. sup.	Building in metal casement frames, 8d. per ft. sup.
Asbestos cement slates or tiles, $\frac{5}{32}$ in. punched per M., grey £25 10s., red £27 10s.	Asbestos slating or tiling on, but not including battens, or boards, plain "diamond" per square grey 70s., red 72s.
Waterproofing compounds for cement.	Add about 75 per cent. to 100 per cent. to the cost of cement used.

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Trade and Craft

Simplex "Terra-Grip" Continuity System.

Messrs. Simplex Conduits Limited, of Garrison Lane, Birmingham, have sent us advance copies of a leaflet (No. 893) dealing with the Simplex "terra-grip" continuity system—a new development in light gauge unscrewed conduit installations for either light or power. Each outlet of every fitting has a drilled and tapped boss for housing a steel screw of peculiar formation. After the conduit is inserted into the outlet of the fitting, the screw is driven home, and, by virtue of its structure, the cup-shaped nose of the screw on making contact with the conduit expands. In expanding, the enamel is automatically scraped off the conduit. The expansion of the cup-shaped nose automatically locks the screw in position, thus making it impossible to loosen under vibration. This constitutes a very important advantage of the "terra-grip" continuity system, and is a feature due solely to the peculiar formation of the "terra-grip" screw. Conductivity tests on "terra-grip" junctions have been carried out by the Electrical Engineering Department of the University of Birmingham, by measuring the potential drop in millivolts across a number of conduit "terra-grip" junctions in series. Currents up to 40 amperes were passed through the conduit and junctions, and the average resistance per junction was found to be only three ten-thousandths of an ohm.

"Mon'lithcrete."

The Fawcett Construction Co., Ltd., of 65 Victoria Street, Westminster, S.W. 1, constructional engineers and contractors, have issued a new pamphlet containing full particulars and tables of strengths of "Mon'lithcrete." Copies of the pamphlet may be obtained on application to the company.

Lighting Appliances at the Shipping Exhibition.

Many appliances of special interest to the shipping and kindred engineering trades will be exhibited by The British Thomson-Houston Company, Ltd., at the Shipping, Engineering, and Machinery Exhibition, which opens at Olympia on September 7. The exhibits of the company appealing more directly to our readers are those connected with electric lighting. These will include vacuum and gas-filled lamps of all sizes and varieties, Mazdalux metal reflectors for industrial lighting, "eye rest" indirect and B.T.H. semi-indirect fittings, floodlight projectors, etc. The most important lighting product of the company is the "Mazda" lamp, and this will be given a prominent position among the exhibits.

Housing of Crofters

Arising out of the discussion on the Committee Stage of the Housing (Scotland) No. 2 Bill, which was recently passed by Parliament, it has been decided that the benefits of joint subsidy and loan under the Housing (Financial Assistance to Crofters) Scheme, 1921, will now be available to *new* holders who, instead of proceeding with the aid of a loan on their houses from the Board of Agriculture for Scotland at 1¼ per cent. interest repayable in 80 years at 2 per cent. per annum (which includes interest and capital) accept a loan on their houses at a rate of 3⅛ per cent. per annum interest, repayable in 50 years at an annual rate of 4 per cent. (which includes interest and capital). New holders who propose to take advantage of this extension of the scheme are, however, reminded that applications in writing must be lodged before September 1, 1921, with the Scottish Board of Health, 121a Princes Street, Edinburgh, or the Board of Agriculture for Scotland, 29 St. Andrew Square, Edinburgh.

Obituary

Mr. B. Fidler.

The death has occurred of Mr. Bernard Fidler, partner of Messrs. James Fidler, Ltd., Sheffield and Eckington, builders and contractors.

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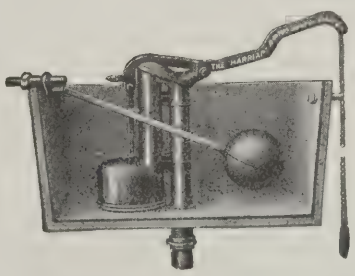
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Electrical Notes

Lighting on Ships.

While the applications of artificial light have been closely studied, there is little available information regarding the lighting of ships, of particular interest therefore is a paper read before the Illuminating Engineering Society by Mr. W. J. Jones, B.Sc.Eng. To-day, Mr. Jones says, an ocean liner has its own generating station, and as the amount of power required for light commonly forms only a small proportion of the total power generated, there is no reason to be particularly economical; but on smaller vessels the supply is more limited, and the lighting consequently more primitive. The greatest danger of light at sea is, of course, the risk of fire. Thus fitting and wiring is a matter of paramount importance. Extreme precautions have to be taken to make certain that the ship is never without lights, since, in the event of an accident, when boats have to be lowered, or people picked out of the water, darkness means confusion and panic.

The fittings on a ship must be strong and sufficiently rigid to withstand the motion of the vessel, and must be at the same time short on account of the small head-room. They may be classified into three distinct types: (1) ornamental fittings for first-class state-rooms and saloons; (2) plain brackets and pendants for passage-ways and third-class rooms; (3) water-tight fittings, such as well glass and bulkheads, for the engine-room, decks, and other exposed parts of the vessel, of which the I.E.E. regulations specify that they shall be so constructed as to withstand an immersion under a 3 ft. head of water before fixing, and shall be capable after erection of standing the application of a stream of water ejected from the open ends of an ordinary wash-deck hose, under a head of 15 ft. for a period of fifteen seconds, the outlet of the hose being 6 ft. away from the fitting.

It is unfortunate, however, that although the quality of the wiring and electrical fittings is carefully specified, there is no information available concerning the intensity of illumination that is required in various parts of the ship.

For the purpose of steering the Board of Trade specify that there shall be navigation lights from the foremast head, mainmast head, and that there be provided port and starboard side lights and a stern light. The question of the visibility of such lights when seen at a distance is naturally of very great importance, and has been the subject of research at the National Physical Laboratory during recent years.

As regards the lighting of passenger vessels, Mr. Jones explains the various principles to be followed in illuminating the different parts of the ship.

The decorative element of lighting is mainly predominant in saloons, and the fixtures may be of almost any design, usually in keeping with the design of the compartment. It is, of course, necessary to particularly avoid glare and hard shadows. Since it is almost impossible to employ high candle-power units, owing to scarcity of head room, this almost invariably means the use of a number of small units to obtain an even illumination. There are apparently two general ways of illuminating writing-rooms and libraries: (1) by a general illumination of 1–2 ft. candle intensity, supplemented by table lamps or sconces; (2) by a much higher general illumination, which is so designed as to be thoroughly diffused, having a value of 4 ft. candles. In dining-rooms, again, there are the two methods of lighting.

It is difficult to illuminate engine-rooms adequately on account of the multiplicity of overhead pipes, girders, ladders, etc., but, by making the surroundings light, and, if possible, white, a vast improvement is obtained. In the first place it is usual to install well glass fittings with 30-watt lamps, but if these are used in very dark surroundings the effect of glare is apparent. It is accordingly suggested that the engine-rooms be lighted as far as possible with fittings provided with some means of obscuring the source of the light, and this may be done by the expedient of shades or opalescent globes.

The boiler-room is probably the most difficult part to illuminate of all, in view of the dead black exteriors of the boilers and the consequent lack of reflecting and diffusing surfaces. Consequently, when a bare lamp is used, a distinct degree of discomfort is experienced from glare. Local lights, of course, must again be provided over the gauges and indicators.

In the smoking-room, again, decorative effect is the chief thing to be considered, but adequate illumination must be provided, in order that card games may be indulged in without eye-strain; 2 to 3 ft. candles should be sufficient.

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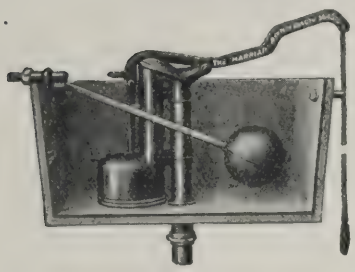
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See illustrated article on Manchester Royal Exchange in this issue.

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Electrical Notes:

Artificial Light in Relation to Games and Sports

MUCH attention has been given of late to the use of artificial light in connection with games and sports, particularly those which involve a rapidly moving ball. Uncertain weather so frequently renders games such as lawn-tennis practically unplayable on grass that "hard courts," using an artificial level surface, have been developed in many cases under cover. Other games, racquets, fives, etc., have been similarly treated, but in all cases the full advantages of these methods can only be secured if artificial light is provided. For large playing areas the provision of adequate artificial lighting naturally presents difficulties. However, facilities for providing electric light have steadily improved, and the cost has substantially diminished.

Much useful and practical information has been given by Mr. J. S. Dow, in opening a discussion on the subject at a meeting of the Illuminating Engineering Society. He said that the consumption of electricity necessary to light the area of a football ground would not appear excessive in the case of a permanent ground where there is ample revenue from gate-money. A football being a relatively large object, and its motion slow as compared with the flight of the ball in some other games, the actual technical requirements of the game as regards lighting did not seem very severe. The writer had seen football in progress by artificial lighting when the illumination in parts of the area was certainly under 0.5 foot-candle—a value which would probably hardly suffice for spectators at League matches. There were, however, certain problems to be solved. Lights must be mounted high up round the field so as to leave the actual playing space clear, and care would be needed to obtain adequate uniform illumination over the central part of the ground. Some skill would also have to be exercised to prevent glare from lamps interfering unduly with the comfort of spectators. There is the further question of lamps suffering damage from the occasional impact of the football when kicked into touch. For these reasons lamps should be mounted on very high posts, 30 or 40 ft. high if possible. Fortunately recent developments in lamps and reflectors render such heights by no means impracticable. Special overhead concentrated lighting from well-screened lights above the goals would probably be useful.

In the case of hockey the smaller ball used, and its more rapid motion, would make lighting more difficult, and there would probably be more difficulty caused by more or less sharp shadows cast by moving players. On the other hand the danger of breakage of lamps by the impact of the moving ball was less. Again, the facts that the ball travels mainly on the ground and is white in colour are advantageous. In lacrosse, where the ball is constantly in the air at a fair height, players would be apt to lose sight of it when it rose above the strongly illuminated zone; this applied in a less degree to football. This difficulty could probably be met to a great extent by using balls of a light tint, instead of the dark-coloured balls customarily used for football and lacrosse. While the lamps ranged round the ground should be so screened that there is as little glare as possible in the eyes of players and spectators, it would be advantageous to allow a certain amount of light to be diffused upwards. This would serve to reveal a light-coloured ball at a considerable height; the ordinary conditions in daylight play would be reversed, the ball appearing as a light object against the dark sky.

With regard to tennis, one of the courts at the Prince's Tennis and Racquets Club (Kensington) has been lighted by a series of twenty mercury vapour lamps suspended from the girders at appropriate intervals. About 2.2 watts per square foot were expended on the lighting of this court (80 ft. long by 40 ft. broad) and an illumination, 3 ft. above the floor, of 3.5-5 foot-candles was provided.

Fives courts and squash racquets courts all present comparatively easy problems in artificial lighting, as the walls are white and the light is readily diffused.

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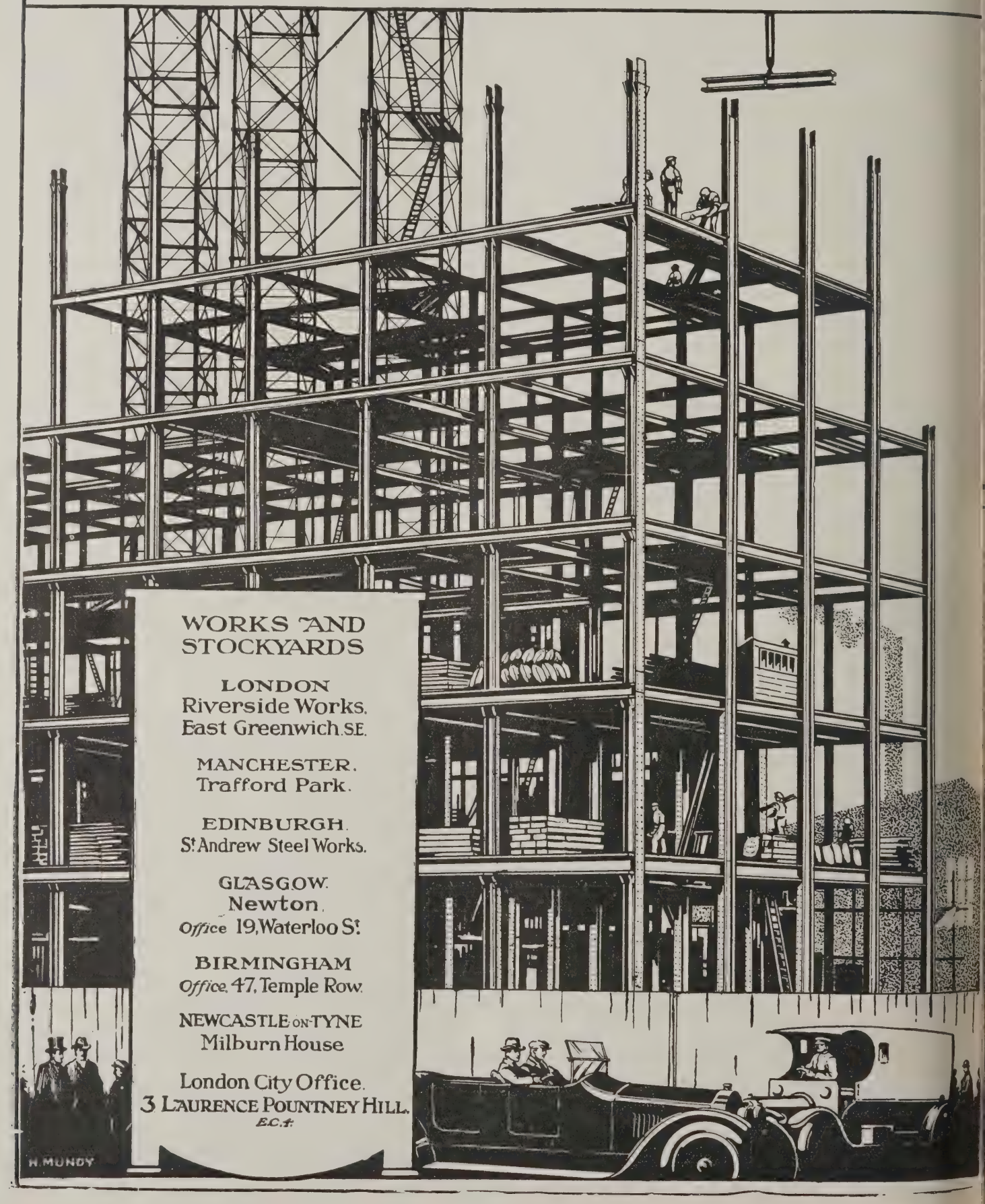
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I WISH to make perfectly clear to every reader of the "Architects' Journal" who is interested in concrete construction of any and every sort a cardinal fact I have proved to my complete personal satisfaction. I have visited and inspected concrete installations in Great Britain and America in a determined effort to learn how Portland cement can best be used—how to obtain the most efficient and satisfactory results in the way of the finished concrete product. On many points there is room for argument. The advocates of a very dry, stiff mix are gaining ground steadily against those who believe in a sloppy mix. The value of the slump test is becoming more generally recognised. One thing I have learned on which I believe there cannot be two opinions—after the demonstration of actual practice. I have found that the concrete produced by hydrating the dry mix with water to which "Anti-Hydro" has been added in proportions of one gallon of "Anti-Hydro" to ten gallons of water is a different product to concrete which has been mixed with plain water only. The use of first-class cement (a bit more care in the selection of materials might be exercised by many cement users) and careful, thorough mixing with a wisely selected aggregate, results in many instances in a very good concrete without the use of "Anti-Hydro." Nevertheless, when "Anti-Hydro" is added to the gauging water, the concrete is *different*. It will resist acids and hold mineral oils in a manner plain water-gauged concrete will not do. "Anti-Hydro" will give a concrete floor surface a hardness that cannot be obtained without its use. The "Anti-Hydro" concrete is *different*. It is harder. I am not imagining that. I have had it proven to me conclusively. Many others have come to the same conclusion—some of them men who have long studied concrete in all its forms. It may sound strange to assert that no man who has not used "Anti-Hydro" has learned all he may learn about concrete, but it's a fact. "Anti-Hydro" is sold in England by The Adamite Company, of Regent House, Regent Street, London, W.1. I am at the head of The Adamite Company. I am greatly interested in concrete—particularly in concrete floors and in concrete stucco. I market Atlas White Portland Cement in England. Write to me, if you think my advice would assist, or my experience would interest you. We are all learning—or should be. We are just approaching a concrete age. The man who is not studying concrete would be wise to do so.

Frederic Coleman

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Electrical Notes

Electricity Supply in the United Kingdom

THE electricity supply in this country prior to the Electricity (Supply) Act, 1919, the reorganization of the supply, and the establishment or extension of generating stations and main transmission lines, are among the more important matters dealt with in the first annual report, just issued, of the Electricity Commissioners. Up to the outbreak of war, the largest output in any one year from the whole of the British power stations (about 500) was some 2,000 million kWh, and during the war the electrical output from public supply stations more than doubled, amounting to 4,628 million kWh in 1918.

As there already exists an extensive and heterogeneous development representing the unco-ordinated growth of many years, the question of reorganization resolves itself into the determination of the best method of adapting, modifying, and expanding the existing development with the view of ensuring as speedily as possible an improvement in the supply of electricity. Progress can only be gradual; even if the problem could be reduced to engineering considerations alone, the present financial stress would constitute a barrier to the speedy development of schemes. They are, however, confronted with a problem of a much more difficult and complex character.

It is only after thorough investigation at all stages, with the fullest opportunity afforded to all interested parties to make representations at each stage, that a scheme for the reorganization of supply in any district can become of statutory effect through the medium of an Order of the Commissioners, confirmed by the Minister of Transport and approved by Parliament. Even in the most favourable circumstances, considerable time must elapse between the provisional determination of a district and the approval by Parliament of a scheme for the district.

The Commissioners, as soon as possible after their appointment, made a preliminary survey of the present and prospective electrical requirements of a considerable portion of the country, which has served to emphasize: (*a*) The wastefulness and inefficiency of the present organization for the supply of electricity; (*b*) The urgent need for co-ordination among the existing supply authorities; and (*c*) The advantages in conservation of capital and of coal and in increased efficiency to be derived from joint action.

The Commissioners came to the conclusion that the existing organization for the supply of electricity in a number of districts should be improved, and published Notices of Provisional Determination of 13 districts.

In dealing with applications for establishing a new or extending an existing generating station or main transmission line, the Commissioners have followed a policy which has been governed by the following broad considerations:—

(*a*) The necessity for facilitating the development of electricity supply in any district and for avoiding any sterilization during the period between the enactment of the Act of 1919 and the coming into operation of a scheme for the reorganization of supply.

(*b*) The effect of the establishment of any new station, or of any extension of an existing station, upon the ultimate development of supply in the district concerned.

(*c*) The undesirability of extending a badly placed station in one district when a better situated station in the same or an adjacent district could be extended and thus enabled to assist the first-named station.

(*d*) The necessity for avoiding the extension or establishment of small and uneconomical stations in cases where the balance of advantage was in favour of taking a bulk supply from an alternative source.

Before consent was given in any case the Commissioners required to be satisfied that the need for the new station or additional plant was urgent; that the proposals were technically and financially sound; and that there was no economical alternative source of supply available either at the moment or in the immediate future. The report, which is published at 3s. net., may be obtained from H.M. Stationery Office.



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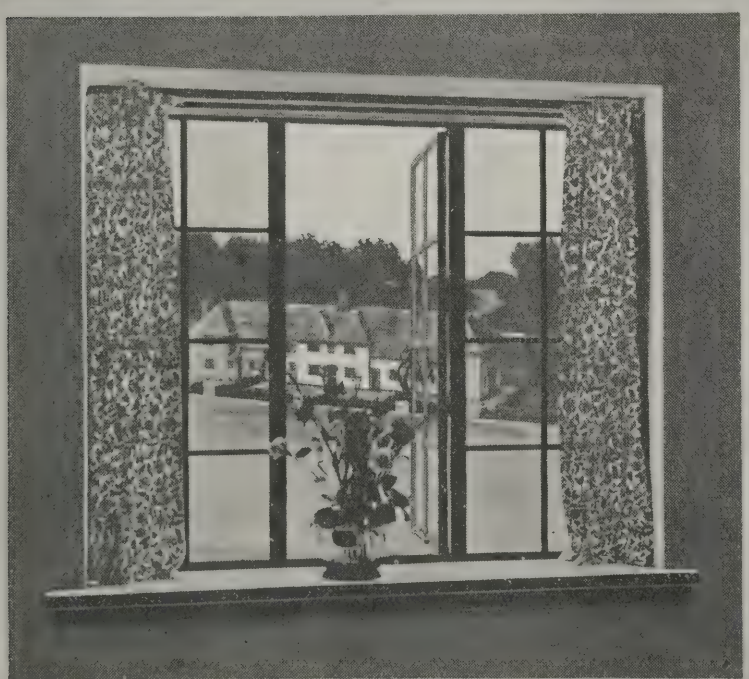
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Electrical Notes

Cinema Studio Lighting: Its Effect on the Eyes

SOME time ago complaints were made that the eyes of the "artistes" working in the cinema studios were being injured by the intense lighting used for the production of the films. Questions on the subject were asked in Parliament, with the result that the Minister of Health instructed the Committee on the Causes and Prevention of Blindness to conduct investigations. After taking much evidence, and paying a visit to a large studio to witness the actual production of films, this committee, which is composed chiefly of eminent doctors, has now arrived at the following conclusions :—

Before the use of exceptionally powerful unscreened arc lights for film production, cases of injuries were rare. About May 1920 new patterns of arc lamps of the searchlight type were imported from America, and have since been used in several British studios. In some instances during the latter months of 1920 the diffusing glass screens ordinarily provided with such lamps were not used; injuries have occurred in these circumstances.

Unscreened arc lamps are liable to cause injury by reason of the unimpeded access of ultra-violet rays to the eyes. The danger is increased according to the proximity of the eyes to the lights and to the duration of the exposure. Goggles have been provided as a form of protection, but do not appear to be generally worn, and their use during the actual production of films appears impracticable.

In certain types of arc lamp used in cinema studios the cores of the carbons emit irritating vapours composed of suspended particles and products of combustion. Danger might arise from this source, but it is unlikely to be serious unless the lamps are very close to the artistes. It is possible that danger might arise from the artistes looking directly at the lights, even if these were properly screened, owing to the intensity of the luminous rays. Permanent damage to sight has been caused, for example, by viewing eclipses of the sun with the naked or inadequately protected eyes. There is no evidence that any such injury has been caused in cinema studios, and the Committee is of opinion that suitably enclosed and screened arc lights are not likely to be dangerous apart from culpable temerity on the part of the artistes.

The evidence of electric-light experts and photographers is to the effect that not only is the use of unscreened arc lights unnecessary for the purpose of film production, but that better photographic results can be obtained when filters are used. The screens ordinarily used are of spun glass, which diminishes the glare, and cuts off the greater part of the dangerous ultra-violet rays.

The Incorporated Association of Kinematograph Manufacturers, Ltd., an association which comprises practically all the film-producing firms in this country, is so much impressed by the evidence of danger to the eyes from unscreened arc lights, that it has given its assurance to the Minister of Health that—

". . . in no case will any member of the Incorporated Association of Kinematograph Manufacturers, Ltd., from now onwards, and as has been the case for some weeks past, permit any open arc lights to be used in their studios for general illumination without glass filters, and the Association is willing to be responsible for its members in that respect, undertaking to notify to the Ministry any studio among its members unwilling to abide by this condition."

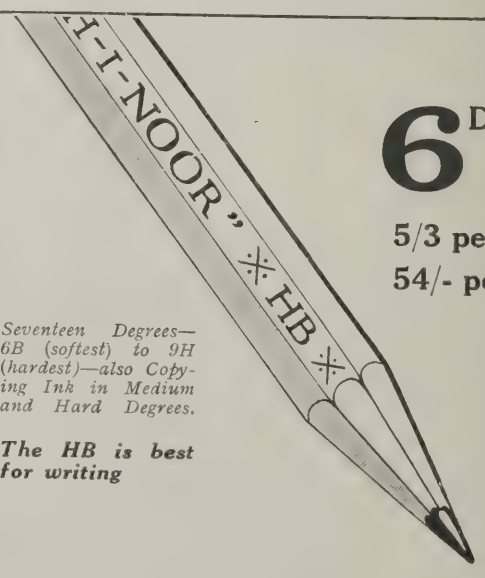
The Committee is of opinion that their undertaking should be accepted, and that further action is unnecessary for the present. It is stated that the Illuminating Engineering Society contemplate the formation of a committee for the purpose of studying the whole question.

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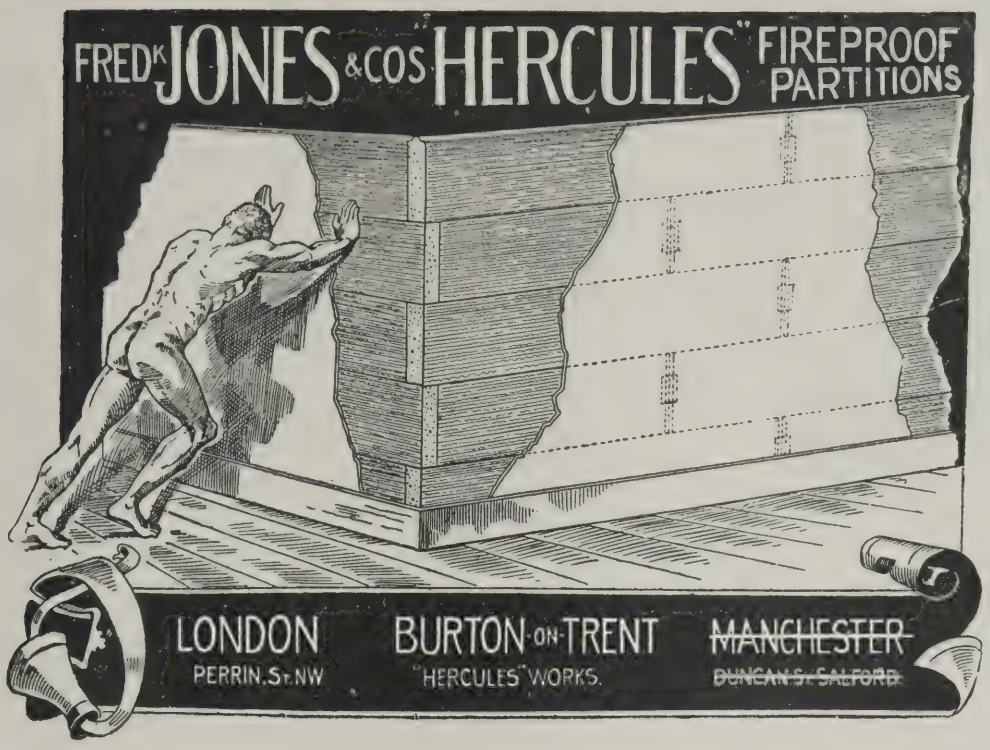
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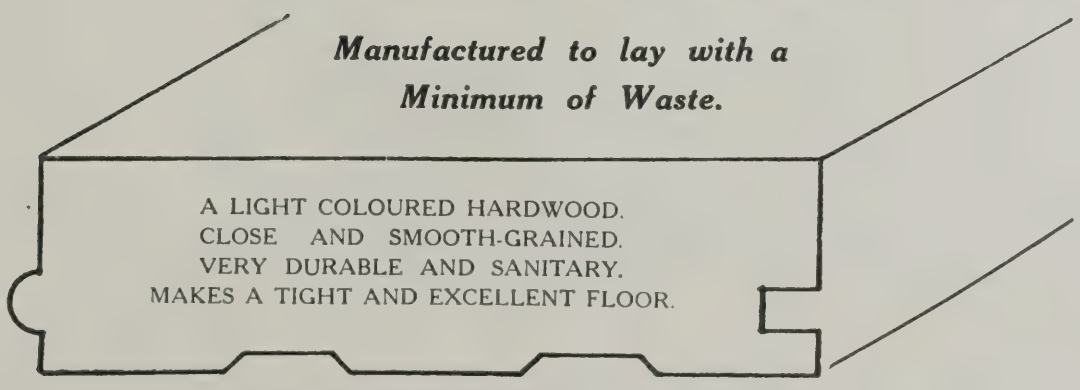
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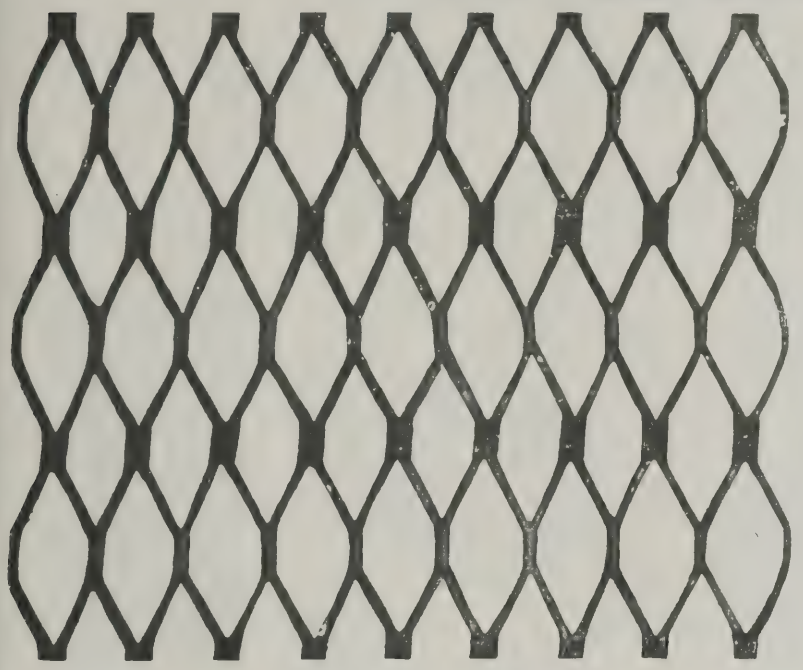
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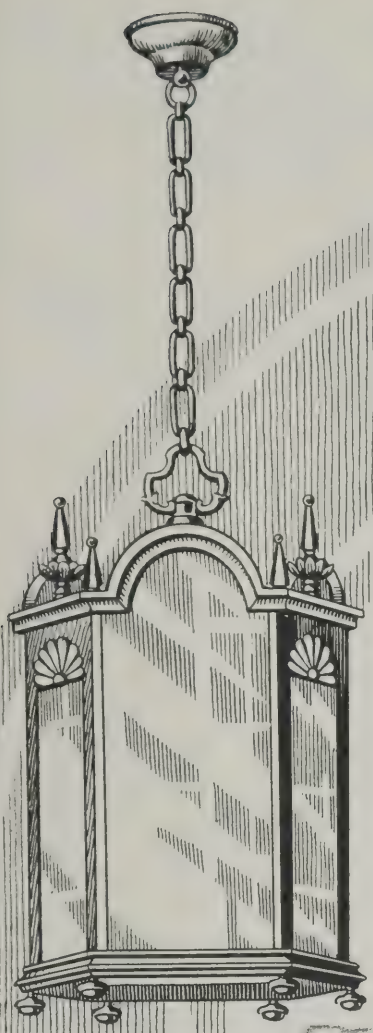
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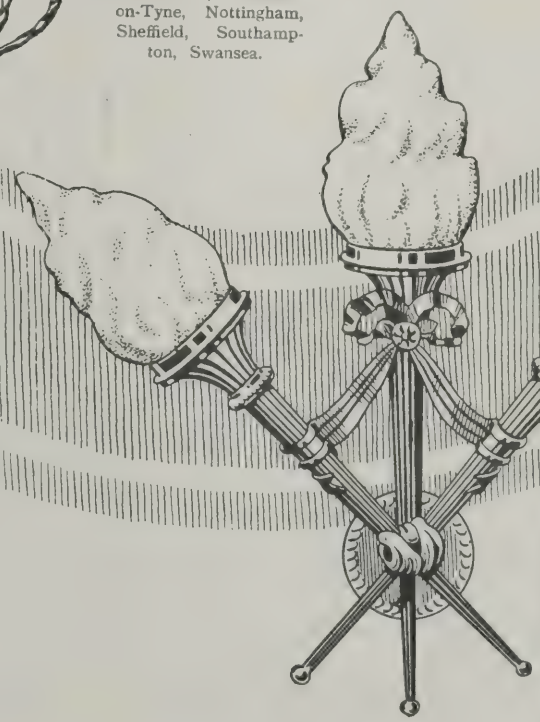
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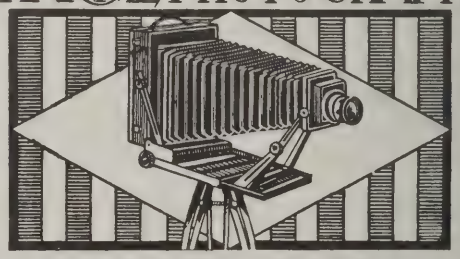
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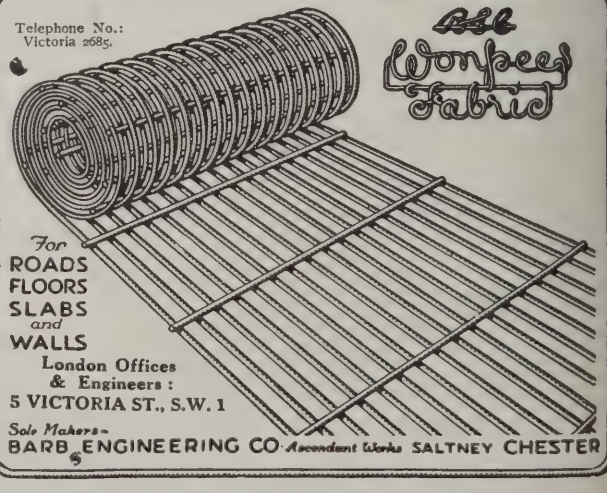
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The Hollow Wall and the Léan System

A HOUSE is a shelter—shelter from cold or shelter from heat. What makes a house a good shelter? Insulation—the quality of not letting heat out in a cold climate or heat in in a hot one. What is the best insulator? Air—still air. All insulation is based on that: whether to keep the heat of the body or the heat of a steampipe. A covering of still air is the way to do it.

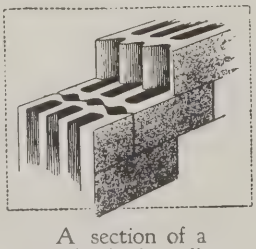
A two or three-inch air-space does not provide a cushion of still air; it is too large. If unventilated it is often found that the inner wall is damp; to absorb this damp a heavy coat of plaster or breeze blocks must be used. If ventilated, the thin inner wall is virtually in direct contact with the outside temperature; an undesirable condition. In the Léan wall there are three independent small air-spaces in which circulation is impossible; consequently the wall is built of the same material throughout; it is laid with one motion of the hand and on the inner face only a skim coat is required.

The Léan wall uses just half the material of the ordinary hollow wall.

Where the hollow wall is weak the Léan wall is strong. The threefold air-space in the Léan wall is the very core and essence of the Léan System. And the Léan System is the greatest step forward alike in the science and in the craft of building. And like all good scientific work, years of experience have confirmed the soundness of the principles on which it is founded. The threefold air-space is threefold insulation. It is threefold insulation without air movement.

This insulation is not obtained by sacrificing something. That is not the way that the big things in the world are done. When James Watt made his steam engine—we do not hesitate to claim the analogy—there was no question of advantages and disadvantages, or of striking a balance. There was just the world of difference between Watt's idea and anything that had gone before. We do not hesitate to claim a difference on that scale for Léan over all that has preceded it. The idea was right in the beginning, and because the idea was right the wall is right and the house is right. Léan buildings exist to-day in thousands from the Arctic Circle to the Equator.

Three men and a Léan machine can make enough blocks in a day to build 40-50 square yards of Léan wall. One man can wall-in half that amount in the same time. Machines can be hired.



A section of a Léan-built wall.

BRITISH Léan COMPANY LTD

Telephone: Gerrard 846

11 Suffolk Street, Pall Mall, London, S.W. 1

Current Prices of Materials

)NDON PRICES.—The following information is intended to serve as a guide only, and should be confirmed by Trade inquiry. The Labour Rates are ose current at the time of issue and are the Union Rates. The prices are for good quality material, and are intended to cover delivery at works, wharf, station, or yard as customary. The measured prices are based upon the foregoing

LABOUR RATES AND MATERIAL PRICES.	MEASURED WORK PRICES.
CAVATOR AND CONCRETOR.	
cavator, 1s. 7½d. per hour.	Excavating and throwing out in ordinary earth,
bourer, 1s. 7½d. per hour.	not exceeding 6 ft. deep, basis price 3s. 10d. per
ivvy, 1s. 7½d. per hour.	yd. cube.
mberman, 1s. 9½d. per hour.	Exceeding 6 ft., but under 12 ft., add 25 per cent.
affolder, 1s. 8½d. per hour.	In stiff clay, add 50 per cent.
atchman, 8s. per shift.	In underpinning, add 120 per cent.
	In rock, including blasting, add 225 per cent.
	If basketed out, add 80 per cent. to 150 per cent.
	Headings, including timbering, add 400 per cent.
	Return, fill, and ram, ordinary earth, 4s. 2d. per yd.
oken brick or stone, 2 in.,	Spread and level, including wheeling, 4s. per
12s. per yd.	yd.
ames ballast, 14s. per yd.	Planking, 6½d. per fr. sup.
gravel, 19s. per yd.	Do. over 10 ft. deep, add for each 5 ft. depth
sand, 17s. per yd.	40 per cent.
ished sand, 19s. per yd.	Hardcore, 2 in. ring, filled and rammed 4 in. thick,
reened ballast or gravel, add	4s. 3d. per yd. sup.
10 per cent. per yd.	Do. 6 in . thick, 5s. 9d. per yd. sup.
nker, breeze, etc., prices	Puddling, 38s. per yd. cube.
according to locality.	Cement concrete, 4-2-1, 56s. per yd. cube.
rtland cement, 77s. 6d. per	Do. 6-2-1, 43s. per yd. cube.
on.	Do. in upper floors, add 15 per cent.
is lime, 60s. per ton.	Do. in ferro-concrete work, add 20 per cent.
cks charged extra at 2s. 3d.	Do. in underpinning, add 60 per cent.
ach and credited when re-	Lias lime concrete, 40s. per yd. cube.
turned at 2s.	Breeze concrete, 40s. per yd. cube.
ansport hire per day :	Do. in lintols, etc., 2s. 10d. per ft. cube.
Cart and horse, 32s. 6d.	
3-ton motor lorry, £4 15s.	
Steam lorry, 5-ton, £5.	
Trailer, 30s.	
Steam roller, £5 5s.	
Water cart, 35s.	
RAINER.	
bourer, 1s. 7½d. per hour.	Stoneware drains, jointed in cement, tested pipes,
nberman, 1s. 9½d. per hour.	4 in., 4s. 3d., 6 in 7s., 9 in. 8s., per ft.
icklayer, 2s. 0½d. per hour.	Cast-iron drains, jointed in lead, 4 in. 16s , 6 in.
mber, 2s. 1d. per hour.	22s. per ft.
atchman, 8s. per shift.	Note.—These prices include digging and filling for
	normal depths, and are average prices.
neware pipes, tested quality,	
in. 2s., 6-in. 3s. 9d.,	
in., 6s. per yd.	
st iron pipes, coated, 9-ft.	
engths, 4-in. 8s. 4d., 6-in.	
2s. 3d. per yd.	
rtland cement and sand, see	
"Excavator" above.	
ad for caulking, 32s. per	
cwt.	
skin, 9d. per lb.	
ICKLAYER.	
icklayer, 2s. 0½d. per hour.	Brickwork in stone lime mortar, Flettons, or equal,
bourer, 1s. 7½d. per hour.	£12 per rod.
affolder, 1s. 8½d. per hour.	Do. in cement do., £46 per rod.
	Do. in stocks, add 25 per cent. per rod.
	Do. in blues, add 320 per cent. per rod.
ndon stocks, 100s. per M.	Do. circular on plan, add 12½ per cent. per rod.
ttons, 72s. per M.	Facings, fair, 2d. per ft. sup. extra.
affordshire blue, 223s. per M.	Do. picked Flettons, 2d. per ft. sup. extra.
ebricks, 2½ in., 254s. per M.	Do. picked stocks, 1½d. per ft. sup. extra.
ized salt, white, and ivory	Do. salt, white or ivory glazed, 6s. 3d. per ft. sup.
stretchers, £26 per M.	extra.
headers, £25 10s. per M.	Tuck pointing, 1s. 8d. per ft. sup. extra.
lours, extra, 110s. per M.	Weather pointing, 3d. per ft. sup. extra.
onds, less, £1 per M.	Granolithic and Cement paving, 1 in., 4s. per
ment and sand, see "Excava-	yd. sup.
tor" above.	Do. 1½ in., 5s. per yd. sup.
ne, grey stone, 66s. per ton.	Do. 2 in., 5s. 9d. per yd. sup.
xed lime mortar, 27s. per	Fixing only damp course, ex rolls, 1½d. per ft. sup.
yd.	Asphalt, damp course ½ in., 10s. per yd. sup.
mp course, in rolls of 4½ in.	Do. vertical, 15s. per yd. sup.
5s. 6d. per roll.	Slate damp course, 1s. 8d. per ft. sup.
in. 8s., 14 in. 9s. 9d.,	Asphalt paving in two thicknesses, ¾ in., 12s. 6d.
18 in. 12s. per roll.	per yd.
	skirting, 6 in., 1s. 6d.
ASON (INCLUDING SLATE).	
son, 2s. 0½d. per hour.	Hoisting and setting stone, 2s. 5d. per ft. cube.
fixer, 2s. 1½d. per hour.	Do. for every 10 ft. above 30 ft., add 15 per cent.
bourer, 1s. 7½d. per hour.	Plain face Portland basis, 2s. 9d. per ft. sup.
affolder, 1s. 8½d. per hour.	Do. circular, 4s. per ft. sup.
	Sunk face, 3s. 9d. per ft. sup.
	Do. circular, 4s. 7d. per ft sup.
rtland stone :	Joints, arch, 2s. 3d. per ft. sup.
Whitbed, 5s. per ft. cube.	Do. sunk, 2s. 5d. per ft. sup.
Basebed, 5s. 1d. per ft.	Do. do. circular, 4s. per ft. sup.
cube.	Circular-circular work, 18s. 6d. per ft. sup.
Bath stone, 3s. 3d. per ft	Plain moulding, straight, per inch of girth, 11d. per
cube.	ft. run.
nsfield, red, 7s 3d.	Do. circular, do. 1s. 3d. per ft. run.
Usual trade extras for large	Half sawing, 1s. 4d. per ft. sup.
blocks.	Add to the foregoing prices if in York stone 35 per
	cent

LABOUR RATES AND MATERIAL PRICES.	MEASURED WORK PRICES.
MASON—(continued)	
York paving, av. 2½ in. 2s. 9d.	Do. Mansfield, 12½ per cent.
per ft. super.	Deduct for Bath, 33⅓ per cent.
York templates sawn, per ft.	Do. for Chilmark, 5 per cent.
cube, 15s.	Setting for 1 in. slate shelving in cement, 11d. per
Slate shelves, rubbed, 1 in.,	ft. sup.
2s. 9d. per ft. sup.	Rubbed round nosing to do., 8d. per ft. lin.
Cement and sand, see "Exca-	York steps, rubbed T. & R., 35s. ft. cub. fixed.
vator," etc., above.	
SLATING AND TILING.	
Slater, 1s. 11½d. per hour.	Slating, 3 in. gauge, compo nails, Portmadoc or
Tiler, 1s. 11½d. per hour.	equal :
Scaffolder, 1s. 8½d. per hour.	Ladies 98s., Countess 112s., Duchess 117s. per
Labourer, 1s. 7½d. per hour.	square.
N.B.—Tiling is often "Piece-	Westmorland, in diminishing courses, 150s. per
work."	square.
	Cornish do., 145s. per square.
	Add, if vertical, 12s. per square approx.
Slates, 1st quality, per M. :	Add, if with copper nails, 7½ per cent. per square
Portmadoc Ladies £22,	approx.
Countess £42, Duchess £56.	Double course at eaves, 1s. 4d. per ft. approx.
	Tiling, 4in. gauge, 5th course nailed, in hand-made
Clips, lead, 4¾d. per lb.	tiles, average 128s. per square.
Clips, copper, 2s. 4d. per lb.	Do., machine-made do., 116s. per square.
Nails, compo, 35s. per cwt.	Fixing lead soakers, 9d. per dozen.
Nails, copper, 2s. 3d. per lb.	*See* Sundries for Asbestos Tiling.
Cement and sand, see "Excava-	
tor," etc., above.	
Handmade tiles, 170s. per M.	
Machine-made tiles, 155s. per	
M.	
Westmorland slates, large,	
245s. per ton, Peggies 190s.	
per ton.	
CARPENTER AND JOINER.	
Carpenter, 2s. 0½d. per hour.	Fir fixed in wall plates, lintels, sleepers, etc.
Joiner, 2s. 0½d. per hour.	7s. 6d. per ft. cube.
Labourer, 1s. 7½d. per hour.	Do. framed in floors, roofs, etc., 9s. per ft. cube.
	Do., framed in trusses, etc., including ironwork,
	11s. 6d. per ft. cube.
Timber, average prices at Docks,	Pitch pine, add 33⅓ per cent.
London Standard.	Fixing only boarding in floors, roofs, etc., 17s.
	per sq.
	Sarking felt laid, 1-ply 1s. 8d., 3-ply 1s. 10d. per yd.
Scandinavian, , etc. (equal to	Centering for concrete, etc., including horsing and
2nds) :	striking, 67s. per sq.
7×3, £30 per std., to 11×4,	Slate battening, 25s. per sq.
£40 per std.	1 in. deal gutter board on firring, 95s. per sq.
Memel or Equal.	1⅛ in. moulded casements in 4 sqs., glazing beads
Slightly less than foregoing.	and hung, 3s. per ft. sup.
Flooring P.E., 1-in., 25s. per	2 in. do. do., 3s. 3d. per ft. sup.
sq.	Deal cased frames, oak sills, 2 in. D.H. sashes,
Do. T. and G., 1 in. 25s. per	brass-faced pullies, etc., 4s. 9d. per ft. sup.
sq.	Doors, 4 pan, sq. b.s., 2 in, 3s. per ft. sup.
Planed Boards, 1 in.×11 in.,	Do. do. do., 1½ in. 2s. 9d. per ft. sup.
£48 per std.	Do. do., moulded b.s., 2 in. 3s. 3d. per ft. sup.
Wainscot oak, 2s. 9d. per ft.	Do. do. do., 1½ in. 3s. per ft. sup.
sup. of 1 in.	If in oak multiply 6 times.
Mahogany, 2s. 6d. per ft. sup. of	If in mahogany multiply 6 times.
1 in.	If in teak multiply 7 times.
Do. Cuba, 3s. 9d. per ft. sup. of	Wood block flooring, standard blocks, laid in
1 in.	Mastic, Herringbone—deal, 1 in. 17s., 1¼ in.
Teak, 3s. per ft. sup. of	19s. per yd. sup., average
1 in.	Do. do., 1½ in. Maple blocks, 22s.
	Staircase work, deal :
	1 in. riser, 1½ in. tread, fixed, 4s. per ft. sup.
	2 in. deal strings, fixed, 4s. 3d. per ft. sup.
PLUMBER AND RAIN-WATER GOODS.	
Plumber, 2s. 1d. per hour.	Milled lead and labour in gutters, flashings, etc.
Mate or labourer, 1s. 7½d. per	58s.
hour.	Lead pipe, fixed, including running joints bends,
	and tacks, ½ in., 1s. 7d. per ft.
	Do., ¾ in., 2s. per ft.
	Do., 1 in., 2s. 5d. per ft.
	Do., 1¼ in., 3s. per ft.
	Lead waste or soil, fixed as above, complete, 2½ in.
	4s. 6d. per ft.
	Do., 3 in., 5s. 6d. per ft.
	Do., 4 in., 6s. 3d. per ft.
Lead, milled sheet, 37s. 6d. per	Cast-iron R.W. pipe, at 24 lb. per length, jointed
cwt.	in red lead, 2½ in., 2s. per ft.
Do. drawn pipes, 38s. per	Do., 3 in., 2s. 4d. per ft.
cwt.	Do., 4 in., 2s. 8d. per ft.
Do. soil pipe, 40s. 6d. per cwt.	Cast-iron H.R. gutter, fixed, with all clips, etc.
Do. scrap, 22s. per cwt.	4 in., 2s. 6d. per ft.
Copper, sheet, 2s. 4d. per lb.	Do., O.G., 4 in., 3s. 3d. per ft.
Solder, plumbers, 10d. per lb.	Cast-iron soil pipe, fixed with caulked joints and all
Do. fine, 1s. per lb.	ears, etc., 4 in., 6s. 6d. per ft.
Cast-iron pipes, etc. :	Do., 3 in., 5s. 6d. per ft.
L.C.C. soil, 3 in. 7s. 3d., 4 in.	Fixing only :
9s. per yd.	W.C. pans and all joints, P. or S., and including
R.W.P., 2½ in. 4s. 2d., 3 in.	joints to water waste preventers, 45s. each.
4s. 9d., 4in. 6s. 4d. per yd.	Baths only, with all joints, 40s.
Gutter, 4in. H.R., 4s. 2d., 4 in.	Lavatory basins only, with all joints on brackets
O.G., 4s. 10d. per yd.	32s. each.

LABOUR RATES AND MATERIAL PRICES.	MEASURED WORK PRICES.
GLAZIER.	
Glazier, 2s. per hour.	
Glass : 4th in crates :	
Clear, 21 oz. 6½d., 26 oz. 7½d.	Glazing in putty, clear sheet, 21 oz. 1s. 2d., 26 oz. 1s. 3d.
Cathedral white, 6½d. per ft.	Glazing in beads, 21 oz. 1s. 6d., 26 oz. 1s. 8d. per ft.
Polished Plate, British ¼ in., up to 2 ft. sup. 2s. 1d., 3 ft. sup. 2s. 7½d., 7 ft. sup. 4s., 25 ft. sup. 4s. 6d., 100 ft. sup. 5s. 6d.	Patent glazing in rough plate, normal span, 1s. 11d. to 2s. 3d. per ft.
Rough plate, $\frac{3}{16}$ in., 6¾d., ¼ in. 7⅜d. per ft.	Lead light, plain, med. sqs. 21 oz., usual domestic sizes, fixed, 3s. 9d., and up, per ft. sup.
Linseed oil putty, 17s. 6d. per cwt.	Glazing only, polished plate, 6½d. to 8d. per ft., according to size.
PLASTERER.	
Plasterer, 2s. 0½d. per hour.	
Labourer, 1s. 7½d. per hour.	
——	
Chalk lime, 70s. per ton.	
Hair, 26s. per cwt.	
Sand and cement, see "Excavator," etc., above.	
Lime putty, 4s. 3d. per cwt.	
Hair mortar, 33s. per yd.	
Fine stuff, 40s. per yd.	
Sawn laths, 4s. per bdl.	
Keene's cement, 95s. per ton.	
Sirapite, 71s. per ton.	
Do. fine, 71s. 6d. per ton.	
Plaster, 76s. per ton.	
Do. fine, 77s. per ton.	
Thistle plaster, 71s. per ton.	
Lath nails, 5d. per lb.	
	Lathing with sawn laths, 1s. 11d. per yd.
	Metal lathing, 2s. 1d. per yd.
	Floating in Portland, 1 to 3, for tiling or wood-block, ⅜ in., 2s. 10d. per yd.
	Do., vertical, 3s. 3d. per yd.
	Render, on brickwork, 1 to 3, 2s. 11d. per yd.
	Render in Portland and set in fine stuff, 3s 9d. per yd.
	Render, float, and set, trowelled, 3s. 3d. per yd.
	Render and set in Sirapite, 3s. 6d. per yd.
	Do., in Thistle plaster, 3s. 6d. per yd.
	Extra, if on but not including lathing, any of foregoing, 7d. per yd.
	Extra, if on ceilings 8d. per yd.
	Angles, rounded Keenes on Keenes, 9d. per ft. lin.
	Plain cornices, in plaster, per inch girth, including dubbing out, etc., 3½d. per ft. lin.
	White glazed tiling set in Portland and jointed in Parian, 38s. per yd.
DECORATOR.	
Painter, 1s. 11½d. per hour.	
Labourer, 1s. 7½d. per hour.	
French polisher, 2s. 2½d. per hour.	
Paperhanger, 2s. 0½d. per hour.	
——	
Genuine white lead, 58s. per cwt.	
Linseed oil raw, 3s. 3d. per gall.	
Do. boiled, 3s. 8d. per gall.	
Turpentine, 6s. 4d. per gall.	
Liquid driers, 14s. per gall.	
Knotting, 35s. per gall.	
Distemper, washable, in ordinary colours, 53s. per cwt. and up.	
Double size, 4s. 6d. per firkin.	
Pumice stone, 7d. per lb.	
Varnish, hard oak, 15s. 6d. per gall. and up.	
	Lime whiting 6d. per yd. sup.
	Wash, stop, and whiten, 10d. per yd. sup.
	Do., and 2 coats distemper with proprietary distemper, 1s. 2d. per yd. sup.
	Knot, stop, and prime, 7d. per yd. sup.
	Plain painting, including mouldings, and on plaster or joinery, 1st coat, 1s. 2d. per yd. sup.
	Do., subsequent coats, 10d. per yd. sup.
	Do., enamel coat, 1s. 7d. per yd. sup.
	Brush, grain, and 2 coats varnish, 4s. 6d. per yd. sup.
	Figured do. do., 7s. per yd. sup.
	French polishing, 1s. 8d. per ft. sup.
	Strippingold paper and preparing, 1s. 10d. per piece.
	Hanging paper, ordinary, 2s. per piece.
	Do., fine, 2s. 6d. and upwards per piece.
	Varnishing paper, 1 coat, 11s. per piece.
	Canvas, strained and fixed, 3s. per yd. sup.
	Varnishing, hard oak, 1st coat, 1s. 6d. yd. sup.
	Do., each subsequent coat, 1s. 3d. per yd. sup.

LABOUR RATES AND MATERIAL PRICES.	MEASURED WORK PRICES.
DECORATOR (continued)	
Varnish copal, 21s. 6d. per gall. and up.	
Do. Flat, 21s. 6d. per gall.	
Do. Paper, 18s. 6d. per gall.	
French polish, 29s. per gall.	
Ready mixed paints, 12s. per gall. and up.	
STEELWORK, SMITHWORK, etc.	
Smith, Weekly Rate = 2s. 2¼d. per hour.	Mild steel in trusses, etc., erected, £29 per ton.
Mate, Do. = 1s. 6½d. + 12½ %.	Do., in small sections as reinforcement, £20 per ton.
Erector, 2s. 2d. per hour.	Do., in compounds, £21 per ton.
Fitter, 2s. 2d. per hour.	Do., in bar or rod reinforcement, £22 per ton.
Labourer, 1s. 10d. per hour.	Wrot. iron in chimney bars, etc., including building in, 45s. per cwt.
	Do., in light railings and balusters, 50s. per cwt.
	Fixing only corrugated sheeting, including washers and driving screws, 2s. per yd.
——	
Mild steel in British standard sections, £17 per ton.	
Sheet steel :	
Flat sheets, black, £30 per ton.	
Do. Galvd., £35 per ton.	
Corrugated sheets, Galvd., £30 per ton.	
Driving screws, galvd., 3s. per grs.	
Washers, galvd., 2s. per grs.	
Bolts and nuts, 50s. per cwt. and up.	
SUNDRIES.	
Fibre or wood pulp boardings, 4½d. per ft. sup.	Fibre boardings, fixed on, but not including studs or grounds, 8d. per ft. sup.
Plaster Board, 2s. 1d. per yd. sup.	Plaster Board, fixed as last, 5s. 3d. per yd. sup.
Asbestos sheeting, $\frac{5}{32}$ in., grey flat, 3s. 3d. per yd. sup.	Asbestos sheeting, fixed as last, flat, 5s. 6d. per yd. sup.
Do. corrugated, 5s. 9d. per yd. sup.	Do. do., corrugated, 8s per yd. sup.
Asbestos composition. Flooring :	Laid in two coats, average ¾ in. thick, in plain colours, 15s. per yd. sup. Do. ½ in. thick, suitable for domestic work (unpolished), 8s. 6d. per yd.
Metal casements for wood frames, domestic sizes, 2s. 10d. per ft. sup.	Hanging only metal casements in, but not including wood frames, 3s. 9d. each.
Do. in metal frames, 3s. 3d. per ft. sup.	Building in metal casement frames 7d. per ft. sup.
Asbestos cement slates or tiles, $\frac{5}{32}$ in. punched per M., grey £20, red £22.	Asbestos slating or tiling on, but not including battens, or boards, plain "diamond" per square, grey 60s., red 65s.
Waterproofing compounds for cement.	Add about 75 per cent. to 100 per cent. to the cost of cement used.
PLYWOOD.	
3 m/m Alder 2¼d. per ft. sup.	
4½ m/m Amer. White 3¾d. per ft. sup.	
5 m/m Figured Ash 5d. per ft. sup.	
4½ m/m 3rd Quality, Composite Birch 1½d. per ft. sup.	

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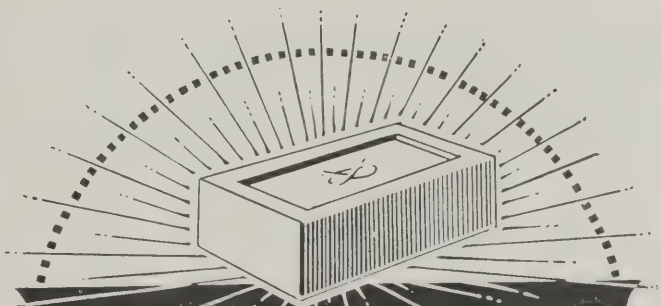
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BUILDING.

December 29.—**HOUSES. Sheffield.**—Erection of 50 additional houses on the Stubbin estate, Firth Park, for the Estates Committee. Apply Mr. F. E. P. Edwards, City Architect, Town Hall, Sheffield. Deposit £2.

December 29.—**HANDICRAFT BUILDING. Crewe.**—Erection of new handicraft building, &c., at County Training College. Apply Mr. H. Beswick, F.R.I.B.A., County Architect, Chester. Deposit £1 1s.

December 29.—**CONVERSION OF LATRINES. Mold, Flints.**—Conversion of the latrines and alterations to drainage at the Northop Hall Council School, for the Education Committee of the Flintshire County Council. Apply Surveyor's Office, County Buildings, Mold. Deposit £1.

December 29.—**EXIT. Saltash.**—Providing a new exit at the Guildhall, Saltash, with reinforced concrete staircase, &c., for the Saltash Corporation. Apply Borough Surveyor's Office, the Guildhall, Saltash.

December 29.—**WORKS. Bruxelles.**—For the fitting up and enlarging of the "Leopold" Barracks at Arlon. Amount of contract, francs 363.590,05; deposit, francs 25.000. For the fitting up and repairing of right wing of the barracks at Burght (waes). Amount of contract, francs 332.149,66; deposit, francs 25.000. For the construction of two sheds at the fodder-warehouse at Namur. Amount of contract, francs 127.165,70; deposit, francs 12.700. For the fitting up and the enlarging of the military school at Bouillon. Amount of contract, francs 393.470; deposit, francs 30.000. Apply Musee Commercial, 15, rue des Augustins, Bruxelles. For completing shed "Lanord" at the military aerodrome at Haeren-Evere, near Brussels. Amount of contract, francs 62.043; deposit, francs 6.000. Apply Commandant des Bâtiments and Constructions militaires de Bruxelles, 2e. commandement 240, rue Belliard, Bruxelles. For the construction for the mess for non-commissioned officers at the barracks "Colonel Dusart" at Hasselt. Amount of contract, francs 87.558,10; deposit, francs 9.000. Apply Commandant des Bâtiments militaires de Liège, rive Gauche, 45, rue Gramme, Liège. For the reconstruction of the building which was burnt down at the barracks "Sion" at Lierre. Amount of contract, francs 126.830; deposit, francs 12.000. For the construction of buildings, sheds, &c., at the military establishments at Gembloux. Amount of contract, francs 1.597.373,10; deposit, francs 80.000. Apply Musee Commercial, 15, rue des Augustins, Bruxelles.

December 29.—**HOUSES. Saltney, near Chester.**—Erection of 22 houses, type A, at Saltney, near Chester, for the Hawarden Rural District Council. Apply Mr. F. Barrett, Surveyor's Office, Hawarden. Deposit £2 2s.

December 29.—**REBUILDING. Manchester.**—Rebuilding the refreshment-room and café at Platt Fields, for the Parks Committee. Apply City Architect, Town Hall. Deposit £1 1s.

December 30.—**ALTERATIONS. Leeds.**—Alterations and additions to fire-engine house, fire brigade station, for the Corporation. Apply Mr. W. T. Lancashire, City Engineer, Municipal Buildings, Leeds.

December 30.—**HOUSES. Newton-in-Makerfield.**—Erection of 16 Type A houses (in brick) at the South Mesnes, Earlstown, in connection with the U.D.C. housing scheme. Apply Housing Director, Market Chambers, Earlstown.

December 30.—**OFFICES, &c. Magherafelt.**—Erection of branch offices and manager's residence at Magherafelt, Co. Londonderry, for the Belfast Banking Co., Ltd. Apply Messrs. Tulloch and Fitzsimons, Architects, 21 Castle Place, Belfast. Deposit £2 2s.

December 30.—**REBUILDING FACTORY. Dublin.**—Rebuilding of factory chimney in reinforced concrete and separate tenders for the construction of underground flue at the Broadstone locomotive works, for the Midland Great Western Railway of Ireland Company. Apply Mr. P. A. Hay, Secretary, Broadstone Station, Dublin.

December 30.—**CONVERTING. Ebbw Vale, Mon.**—Conversion of army huts into temporary schools at (1) Tyllwyn School, Steelworks, Ebbw Vale; (2) Rassau School, Rassau, Beaufort; (3) Pontygof School, Ebbw Vale, for the Ebbw Vale Urban District Council. Apply Mr. P. I. Davies, Engineer and Surveyor, Council Offices, Ebbw Vale. Deposit £2 2s.

December 30.—**SCHOOL EXTENSIONS. Loughton, Essex.**—Extensions to the Loughton County High School, for the Essex County Council. Apply County Architect, Old Court, Springfield, Chelmsford. Deposit £3 3s.

December 30.—**FOUNDATIONS. Inveraray.**—Construction of the foundations and part sea wall in connection with the Inveraray war memorial. Apply Mr. J. P. Munro, Hon. Secretary, Inveraray War Memorial Committee.

December 30.—**MUNICIPAL BUILDINGS. Islington.**—Erection of municipal buildings in Upper Street, N.1., for the Islington Borough Council. Apply Mr. E. C. P. Monson, F.R.I.B.A., F.S.I., Finsbury Pavement House, London, E.C.2. Deposit £3.

December 30.—**TAKING DOWN, &c. Spalding-ton.**—Taking down, removing, and fixing the Y.M.C.A. church from Howden Air Station to Spaldington. Apply Secretary, Mr. R. W. H. Smith, The Grange, Budwith, Selby.

December 30.—**PLASTERING, &c. Christchurch, Hants.**—Plastering, &c., at their institution, for the Guardians. Apply Boardroom.

December 31.—**REPAIRS, &c. Annan.**—Mason, joiner, plumber, and painter work of repairs and painting at Gretna parish church and manse. Apply Mr. E. Tweedie, Architect, 43 Lady Street, Annan.

December 31.—**ALTERATIONS. Port Appin.**—Alterations and additions to doctor's house, Dunvegan, Port Appin, for the Parish Council of Lismore and Appin. Apply Mr. R. W. Campbell, Architect, Columbia Buildings, Oban.

January 2.—**SHELTER. Sowerby Bridge.**—Various works (except painter) required in the erection of a shelter, sanitary conveniences, &c., at the recreation ground, Beech, Sowerby Bridge, for the Sowerby Bridge Urban District Council. Apply Mr. J. Eastwood, A.M.I.C.E., Surveyor, Council Offices, Sowerby Bridge.

January 2.—**SHELTERS. Ramsgate.**—Repair, &c., of the two rustic shelters in the Ellington Park, for the Corporation. Apply Borough Engineer's Office, 2nd floor, Albion House.

January 2.—**VILLA. Lhanbryde, Scotland.**—Erecting a villa in Lhanbryde. Apply Mr. R. B. Pratt, A.R.I.B.A., Architect, Elgin.

January 2.—**HOUSES. Ramsgate.**—Erection and completion of 10 houses fronting the Dumpton Road within the borough, for the Corporation. Apply Mr. W. E. Healey, L.R.I.B.A., M.S.A., 2a Turner Street, Ramsgate Deposit £2 2s.

January 3.—**HOUSES. Wem.**—Erection of four houses on the Quina Brook and Prees (Sandy Lane) sites, for the Wem Rural District Council. Apply Mr. A. G. Eccleston, Clerk, 30 Noble Street, Wem, Salop. Deposit £2 2s.

(*Continued on page* xx.)

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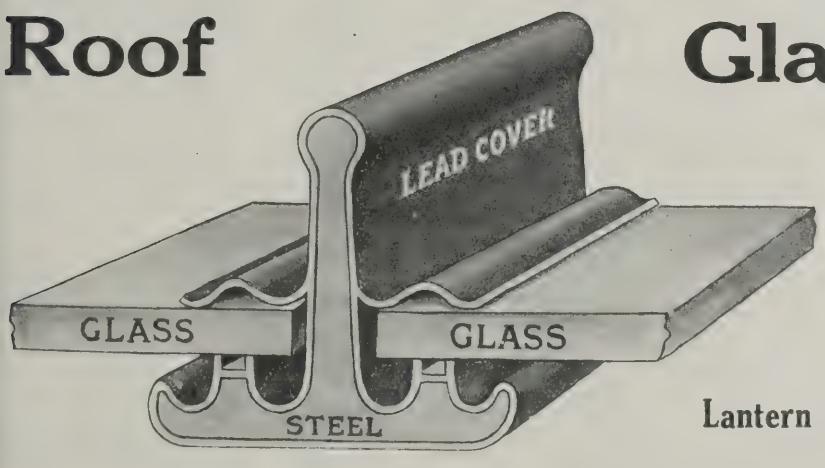
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January 4.—**REPAIRS, &c. Swindon.**—Work at Children's Home, Olive House, Prospect, Swindon, viz.: (1) Interior repairs and decorations to the premises; (2) electric lighting, for the Guardians. Apply Union Offices, Swindon.

January 4.—**ALTERATIONS. Barking.**—Alterations to company headquarters, 4th Battalion Essex Regiment, at 7 and 9 Queen's Road, Barking, for the Territorial Army Association, County of Essex. Apply Lieut.-Col. E. U. Bradbridge, Secretary, Territorial Army Association, County of Essex, Market Road, Chelmsford. Deposit £2 2s.

January 4.—**HOUSES. Rotherham.**—Erection of a further 120 houses in Section B of the Doncaster Road housing site, for the Housing Committee. Apply Mr. C. A. Broadhead, Housing Architect, St. George's Hall, Rotherham. Deposit £2 2s.

January 5.—**HOUSES. Nantymoel.**—Erection of 24 houses at Nantymoel, for the Ogmore and Garw Urban District Council. Apply Mr. A. H. Jenkins, P.A.S.I., Housing and Town-planning Surveyor, Council Offices, Brynmenyn. Deposit £2 2s.

January 6.—**BUILDER WORK, &c. Croydon.**—Contract No. 1, builders' work in connection with forming pipe ducts in corridors, boiler foundations, and sundry other works at the borough hospital; contract No. 2, supply, delivery, and fixing of additional steam circulating mains, pumps, valves, and other steam fittings, &c., in the existing boiler house, corridors, and blocks at the borough hospital; contract No. 3, supply, delivery, and fixing of one steel Lancashire boiler in the existing boiler house at the borough hospital, for the Corporation. Apply Borough Engineer, Town Hall, Croydon. Deposit £2 2s.

January 7.—**HOUSES. Eltham.**—Erection of houses on their housing estate at Eltham, as follows, for the Woolwich Borough Council: Contract D, 54 houses; Contract E, 44 houses. Apply Quantity Surveyors, Messrs. Young and Brown, of Gwydyr Chambers, 104 High Holborn, W.C.1. Deposit £2 2s.

January 9.—**LAYING-OUT ESTATE. Darlington.**—Laying-out an estate at Darlington, including roads, drainage, and erection of 200 houses, for the North-Eastern Railway Housing Trust. Apply Mr. A. Pollard, Architect, North-Eastern Railway, York.

January 9.—**LAVATORIES. Margate.**—Erection and completion of ladies' and gents.' lavatories on the foreshore at Cliftonville, for the Corporation. Apply Borough Engineer's Office, 13 Grosvenor Place, Margate.

January 10.—**HOUSES. Mynyddislwyn.**—Erection of 130 houses at Mynyddislwyn (Bryn site), for the Commissioners of His Majesty's Works, &c. Apply Engineer, Council Offices, Pontllanfraith, Mon., or Contracts Branch, H.M. Office of Works, King Charles Street, London, S.W.1. Deposit £1 1s.

January 10.—**HOUSES. Grantham.**—Erection and completion of 12 houses on the Dysart Road site, for the Town Council, viz: 4 parlour type (in pairs); 8 non-parlour type (in blocks of four or pairs). Apply Mr. F. O. Donaldson, M.S.A., Borough Architect, Guildhall, Grantham.

January 13.—**SCHOOL. West Cornforth, Durham.**—Erection of new infants' Council school at West Cornforth for about 360 infants, for the Durham County Council. Apply Mr. F. Willey, F.R.I.B.A., 34 Old Elvet, Durham.

January 14.—**BOILER-HOUSE. Harrogate.**—Building of a boiler-house at the gasworks, Ripon Road, Harrogate, for the Harrogate Gas Company. Apply Mr. F. H. Robinson, A.M.I.C.E., Engineer and Manager, Gas Office, James Street, Harrogate.

January 14.—**COTTAGES. Carnaby, near Bridlington.**—Erection of four cottages and buildings and the erection of fencing and gates on the Wilsthorpe estate, Carnaby, near Bridlington, for the East Riding County Council. Apply Mr. J. Bickersteth, Clerk, County Hall, Beverley, by January 14.

January 16.—**PAVILION. Cardiff.**—Designs and tenders for supply and erection of a concert pavilion in Llandaff Fields, for the Corporation. Apply Mr. E. J. Elford, M.I.C.E., City Hall, Cardiff. Deposit £2 2s.

February 1.—**REBUILDING. Gosport.** — Proposed rebuilding of the Rose and Crown, Hardway, Gosport, for the Portsmouth United Breweries, Ltd. Apply Mr. Walmisley, Architect, 7 King's Terrace, Southsea.

No Date.—**EXTENSIONS. Halifax.** — Masons, joiners, concreters, asphalters, steelworkers, and decorators' works required in connection with extensions to the Bowling Club pavilion at Thrum Hall, for the Halifax Bowling Club. Apply Messrs. Hinchliffe & Co., L.R.I.B.A., Tower Chambers, Silver Street, Halifax, architects.

No Date.—**RESIDENCE. Wetherby.**—Erection of stone residence, Wetherby. Apply Mr. F. Scatchard, M.S.A., Architect and Surveyor, Bank Chambers, Castleford.

No Date.—**HOUSES. Stokenchurch, Bucks.**—Erection of 12 houses in connection with the housing scheme at Stokenchurch, for Wycombe R.D.C. Apply Mr. C. H. Wright, A.R.I.B.A., 5 Crendon Street, High Wycombe. Deposit £2 2s.

No Date.—**REPAIRS. Fordingbridge.**—General repairs to be executed on 14 cottages in Shrewton district. Apply Messrs. Neaum and Neaum, Fordingbridge.

No Date.—**IMPROVEMENT. Cowbridge.**—Improvement at Gilestone, for the Cowbridge Rural District Council. Apply Office, 79 Eastgate Street, Cowbridge. Deposit £2 2s.

ELECTRICAL.

January 4.—**CONVERTING PLANT. Johannesburg.**—Supply and erection of converting plant for the Municipal Council of Johannesburg. The plant required includes one 2-phase alternating direct current converter with a capacity of 2,000 kw. with the necessary switchgear and spares. The high tension supply is 2-phase current of 3,000 to 3,300 volts per phase, 50 periods, and the converter is to be capable of supplying: (a) direct current 3-wire from 460 to 520 volts as a shunt wound machine, and (b) traction supply from 500 to 550 volts as a compound wound machine. Apply Department of Overseas Trade (Room 49), 35 Old Queen Street, London, S.W.1. (Reference D.O.T. 7335/E.D./S.C.)

January 10.—**TELEPHONE EXCHANGES. London, S.W.**—The Bulgarian Direction of Posts, Telegraphs, and Telephones invite British manufacturers to tender for the supply of 60 fifty-line telephone exchanges, 15 one hundred-line telephone exchanges. Apply Bulgarian Legation, 3 Queensberry Place, S.W.7.

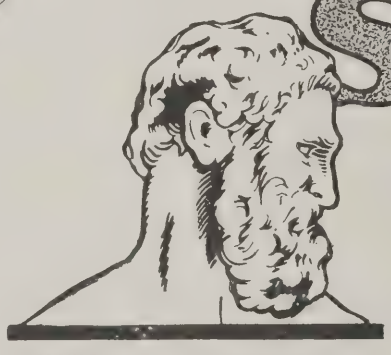
January 12.—**LIFT. London, S.E.**—Provision and erection of an electric passenger lift capable of dealing with a load of 11½ cwt., to have full automatic push-button control, to be completed within two months, at Geoffrey House, Tabard Garden estate, Bermondsey, S.E.1, for the London County Council. Apply Chief Engineer of the Council, Gloucester House (Room 91, 6th floor), 19 Charing Cross Road, W.C.2. Deposit £1.

January 12.—**PLANT. Peterborough.**—Carrying out of various extensions at their electricity works as follows, for the Corporation, viz.:—Supply and erection of one 3,000 kw. turbo-alternator with condensing plant; two 750 kw. rotary converters; two 100 kw. motor generators; certain e.h.t. and l.t. switchgear; steam, water and drain pipes; the provision of foundations for the above plant and certain structural alterations to existing buildings. Apply Mr. H. A. Nevill, City Electrical Engineer, Peterborough. Charge 5s.

January 17.—**DRY CELLS. New Zealand.**—25,000 dry cells for telephone work, to conform to specification No. 41, dated October, 1918, for Post and Telegraph Department. The cells are to be of a round type, 1.5 volts, and of such a size that three may be placed side by side inside a box measuring 7⅜ in. high by 7½ in. wide by 3⅜ in. deep inside measurement. By depth is meant distance from back to front. Apply Department of Overseas Trade (Room 49), 35 Old Queen Street, London, S.W.1. (Reference D.O.T. 7305/E.D./S.C.)

January 19.—**PLANT AND ACCESSORIES. Buenos Aires.**—Supply and erection of the plant and accessories for a new generating station, for the Board of Sanitary Works. Apply Department of Overseas Trade (Room 49), 35 Old Queen Street, London, S.W.1. (Reference No. D.O.T. 2950/F.L./S.C.)

(*Continued on page* xxii.)



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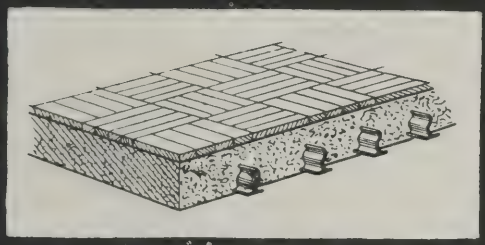
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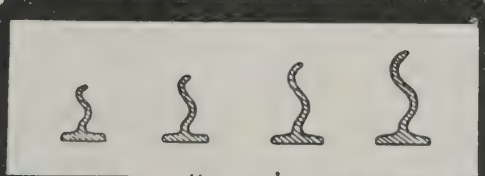
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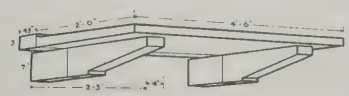
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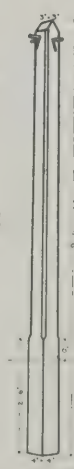
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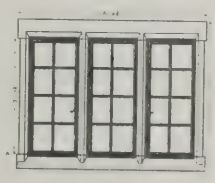


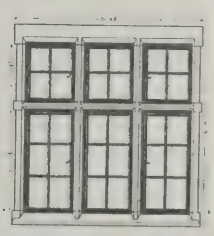
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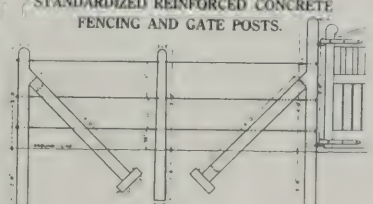


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ENGINEERING.

December 28.—**ENGINEERING WORKS. Liverpool.**—Engineering works in connection with the Walton Institution engineering scheme under the following contracts, for the Guardians of West Derby Union, viz.: Contract No. (2) Hot-water heating, domestic hot-water supply, plant and cooking plants, (3) electric light and power installation, including generating plant; (4) engineering, boilers and stokers, disinfectors, crane, steam and exhaust piping; (5) electric lift services; (6) telephone installation; (7) refrigerating plant and mortuary cooling chamber. Apply Office of the Architect, Mr. E. B. Bailey, 37 Moorfields, Liverpool. Deposit £1 1s.

December 30.—**FENCE. Dublin.**—Supply of 175 yards of unclimable palisading, for the Midland Great Western Railway of Ireland Co. Apply Mr. P. A. Hay, Secretary, Broadstone Station, Dublin.

December 31.—**SUPERSTRUCTURES. Bangkok, Siam.**—Supply of superstructures of steel railway bridges, for the Siamese State Railways. Apply Messrs. C. P. Sandberg, 40 Grosvenor Gardens, London, S.W.1. Deposit 10s.

January 2.—**PLANT. Birmingham.**—Erection and supply of plant for refuse destructor and salvage works at Brookvale Road, Witton, for the Salvage and Stables Committee, as follows: Contract No. 1: (a) eight-cell destructor in two units, with screening plant, belt conveyors, two boilers, feed pumps, fans, &c.; (b) foundations on concrete pile; (c) retaining wall for Approach Road, 20-ton weighbridge and office; (d) brick chimney; (e) clinker crushing and screening plant. Contract No. 2: electric garage, weighbridge, and office. Contract No. 3: canal arm. Apply Mr. J. Jackson, Superintendent, Salvage Department Council House, Birmingham. Deposit £1 1s.

January 2.—**BRIDGE SUPERSTRUCTURE, &c. Norwich.**—Steel superstructure and appurtenances of a bridge across the River Wensum at Carrow, Norwich, for the Norwich Corporation. Apply Mr. A. E. Collins, M.I.C.E., City Engineer, &c., Guildhall, Norwich. Deposit £25.

January 3.—**BOILER. Shoreditch.**—Supply, delivery and erection of one water-tube boiler of 33,000 lb. evaporative capacity, for the Shoreditch Electricity Supply Department. Apply Mr. C. N. Russell, Borough Electrical Engineer, Electricity Supply Department, Coronet Street, Shoreditch, N.1. Deposit £1.

January 4.—**GAS-ENGINE, &c. Beddington Corner, Surrey.**—Supplying and fixing a 15½ h.p. Crossley gas-engine, a rotary washing machine, providing and fixing extensions of shafting, with all necessary pulleys, belting, &c., at the Isolation Hospital, Beddington Corner, Mitcham Junction, for the Wandle Valley Joint Hospital Board. Apply Mr. R. M. Chart, F.S.I., Surveyor to Joint Board, Lower Green, Mitcham, Surrey.

January 4.—**REBUILDING BRIDGE. Horncastle.**—Rebuilding a bridge near Langton Hill on a road off the Bardney Road at Langton-by-Wragby, for the Horncastle Rural District Council. Apply Council Offices, 4 Church Lane, Horncastle.

January 9.—**PUMPS, &c. Hammersmith.**—Centrifugal pumps and oil or gas engines for a pumping station to be erected at Hammersmith, for the London County Council. Apply the Chief Engineer, County Hall, Spring Gardens, Charing Cross, S.W. Deposit £5.

January 10.—**FENCING, &c. Auckland, N.Z.**—Supply of mild steel or iron gates and fencing for Quay Street frontage, Auckland, for the Auckland Harbour Board. Apply Messrs. W. and A. McArthur, Ltd., Canberra House, 18-19 Silk Street, Cripplegate, London, E.C.

January 13–16–February 26.—**MARITIME LOCK, &c. Brussels.**—Construction of a maritime lock at Kruisschans (Antwerp): Adjudication January 16, 1922, instead of January 2. Construction of a dry dock at Langerbrugge, near Ghent, on the Ghent-Terneuzen Canal: Adjudication February 26, 1922, instead of January 13. Construction of fishing port at Ostend: Adjudication January 13, 1022, instead of December 2, 1921. Construction of a new channel from the Scheldt to the docks at Antwerp: Adjudication January 16, 1922, instead of December 19, 1921. Apply Department of Overseas Trade (Room 50), 35 Old Queen Street, London, S.W.1. (Reference D.O.T.12857/F.W./S.C.).

January 17.—**PURIFIERS. Wallasey.**—Manufacture, delivery, and erection of purifiers at their gasworks, Limekiln Lane, Wallasey, for the Wallasey Corporation. Apply Engineer and Manager, Mr. J. H. Crowther, Gasworks, Limekiln Lane, Wallasey.

January 18.—**BOILERS, &c. Deptford.**—Supply and fixing of two Lancashire boilers, superheater, piping, feed pumps, &c., at their Deptford pumping station, Brookmill Road, London, S.E.8, for the Metropolitan Water Board. Apply Office of the Board, Room 182, Chief Engineer's Department, 173 Rosebery Avenue, Clerkenwell, E.C.1, after December 6. Deposit £1 1s.

January 21.—**OUTFALL WORKS EXTENSION. Long Reach, Kent.**—Construction of precipitation and storage tanks, sewers, buildings and other works at Long Reach, Dartford, for the West Kent Main Sewerage Board. Apply Mr. A. B. Coomber, Secretary, Park House, Bromley, Kent. Deposit £5.

January 30.—**GASHOLDER TANK. Sunderland.**—Construction of a mass concrete gasholder tank, 127 ft. 6 in. diameter by 25 ft. 8 in. deep, at the Ayre's Quay works, for the Sunderland Gas Company. Apply Mr. C. D. Drury, Engineer, Hendon Gasworks, Sunderland.

February 21. — **PLANT AND MACHINERY. Buenos Aires.**—Supply of the following plant and machinery:—4 steam cranes, 4 concrete mixers, 9 electric motors, 36 tip wagons, 5 machine tools, 1 50-h.p. internal-combustion engine, 1 steam hammer, 1 steam excavator, 1 centrifugal pump with electric motor, for the Argentine Ministry of Public Works. Apply Room 50, of the the Department of Overseas Trade, 35 Old Queen Street, London, S.W.1. (Reference D.O.T.5073/FL/SC).

PAINTING.

January 3.—**PAINTING, &c. Loughborough.**—Cleaning, painting, and papering certain parts of the Town Hall, for the Estates Committee. Apply W. Granger, Assoc.M.Inst.C.E., Acting Borough Engineer, Town Hall, Loughborough.

ROADS AND SEWERS.

January 1.—**SEWER. Dagenham.**—Construction of about 4,000 ft. of 36 in. diameter concrete sewer and other works in the parish of Dagenham, for the Romford Rural District Council. Apply Consulting Engineer, Mr. W. Fairley, M.I.C.E., Parliament Mansions, S.W.1, or to Mr. W. J. Grant, Surveyor to the Council, Romford.

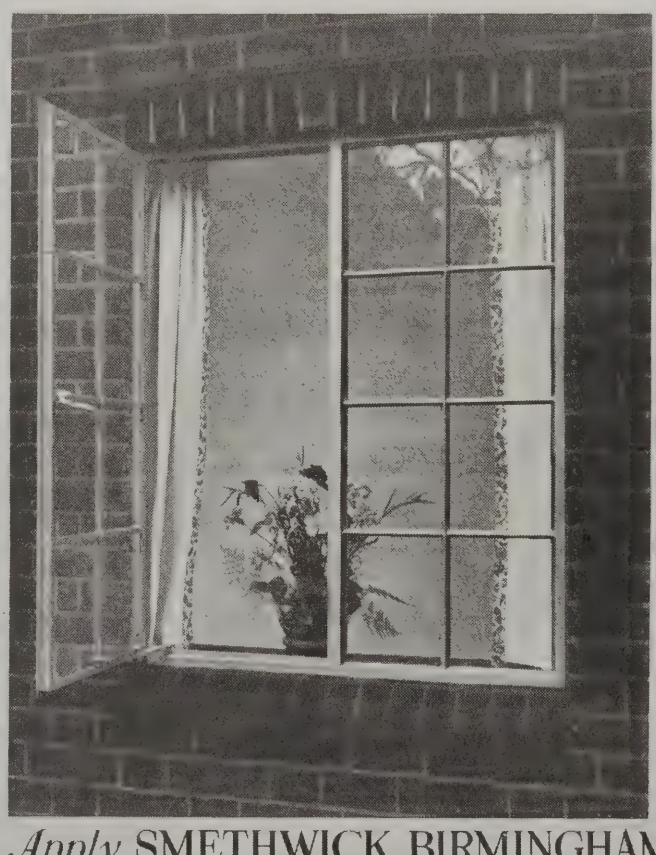
January 1.—**DRAINAGE WORK. Hartland, Devon.**—Drainage scheme at Hartland Parish Church. Apply Mr. F. J. Wilton's (Myrtle Cottage, Hartland).

January 4.—**ROAD WORKS. Salisbury.**—Executing certain works in Bedford Road, Russell Road, and Highbury Avenue, under the Private Street Works Act, 1892, for the Town Council. Apply Mr. W. J. Goodwin, A.M.I.C.E., City Engineer and Surveyor, Municipal Offices, Salisbury. Deposit £1 1s.

February 14 to March 1.—**DRAINAGE AND SEWAGE WORKS. Lille.**—Land drainage and sewage works in the area of Basse-Deulo, the outlet of the town drainage system. Apply Department of Overseas Trade (Room 84), 35 Old Queen Street, Westminster, S.W.1.

List of Competitions Open

Date of Delivery.	Competition.
Jan. 1 ...	War Memorial at Harrogate. Premiums—£100, £50, and £25. Apply Mr. C. E. Rivers, A.M.Inst.C.E., Borough Engineer, Municipal Offices, Harrogate.
Jan. 23	Laying out 15 acres of ground for recreation purposes, for the Seaford Urban District Council. Premiums £50 and £25. Apply Mr. W. H. Pawson, Clerk to the Council, 3 Clinton Place, Seaford, Sussex. Deposit £2 2s.
May 1922	Museum and Institute as war memorial for City of Auckland, New Zealand. Cost £170,000. Premiums amount to £1,000. Apply Secretary, R.I.B.A.
No Date	War Memorial in granite for Kirkwall and St. Ola. Apply Mr. W. J. Heddle, Town Clerk, Municipal Buildings, Kirkwall.
No Date	War Memorial for City of Truro. Cost not to exceed £1,000. Apply Town Clerk, Truro.



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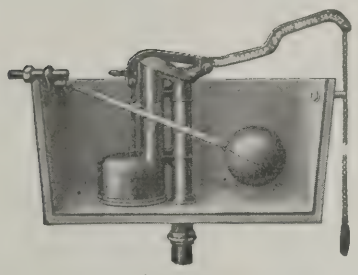
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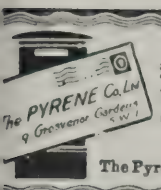
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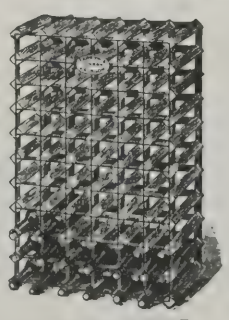
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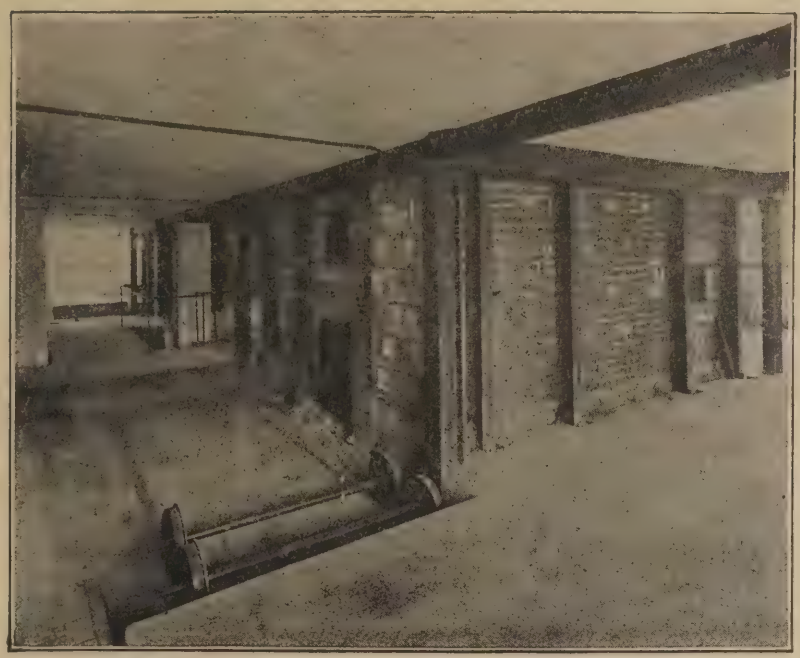


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